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# **Review of the Basic Medical Insurance System Reform in Urban China**

**Cai Renhua**

## **Introduction**

The Basic Medical Insurance System in urban China was established in the early 1950s, just after the foundation of the People's Republic of China. At that time, many areas of everyday life were awaiting economic recovery and the national economy was poor. In the field of Health Reform the Chinese Government financed the building of public hospitals, whilst taking over and rebuilding existing hospitals. It also gave subsidies to both health employees and patients. Public hospitals received regular government subsidies, allowing hospitals to charge employees and residents low prices. Prices were set so low that charges for some items were even lower than cost.

Hence, medical services in public hospitals constituted a form of welfare that the government provided for all. The Labour Insurance Scheme (LIS), implemented in 1951, only covered employees working in state-owned enterprises with regard to medical services, pensions, medical accidents, child delivery and so on. In 1952 the Government Welfare Insurance Scheme (GIS) was implemented, which covered employees working in government offices and public institutions (educational, scientific and technological, cultural, health, and physical education etc.). LIS funds were composed of donations from the enterprises, based on a certain proportion of employees' wages. GIS funds came from government, at all levels. The medical insurance system played an important role in improving the development of the social economy and in ensuring the well being of employees' basic health. However, this was not without some drawbacks.

## **Section One**

Throughout the Cultural Revolution (1966 to 1976), and through the Adjustment Stage (end of the 1970s to the beginning of the 1980s) and Reform Stage (mid-1980s to the present day), the problems with the LIS and GIS were gradually recognised and understood. The main problems were as follows:

Firstly, most medical expenditure was borne by government and private enterprise, meaning in effect that employees' medical expenses were paid for by a third party. Most hospitals charged on a fee-for-service basis. Hence, the medical insurance system itself had no effective mechanism to control the increased cost incurred. The availability and accessibility of medical services induced users' demand to some extent, but this demand often swamped the health service. Consequently, health expenditure increased 'whip and spur', so to speak. According to statistics, the number of people covered by the medical insurance system rose from 92 million in 1978 to 153 million in 1997, an increase of 66.3%. Over the same period, medical expenditure increased from 3.16 billion yuan to 77.37 billion yuan. Meanwhile, the percentage of medical

expenditure borne by the employer increased as a percentage of the employee's wage from 5.8% to 9.1%. The increase in medical expenditure was too high to tolerate.

Secondly, the medical insurance system lacked reasonable and steady financing mechanisms. With changes in government subsidy, government GIS budgets decreased with each year. However, the medical expenditure that hospitals, enterprises and employees bore increased each year. For example, in 1996 medical expenditure on GIS was approximately 16.428 billion yuan, of which the government budget contributed about 11.016 billion yuan, or 67.1%. Operational income used to compensate the medical expenditure on GIS in public hospitals amounted to roughly 31.84 million yuan, or 19.14%. The management office of the GIS owed hospitals 753 million yuan, or 4.6%. Expenditure borne by employees was 1.04 billion yuan, or 6.3%. Expenditure paid by employers amounted to 43.5 million- yuan, or 2.6%. Hence, the 'demand' side bore one tenth of the total medical expenditure. Both employees and employers felt medical expenditure was too high to sustain.

Thirdly, the medical insurance system only covered employees working for government and state-owned enterprises. The level of socialisation of the system was very low and some equity problem arose. Due to the way in which finances are channelled, management and strategy differ between GIS and LIS and, as a result, it is difficult for employees to flow from one unit to another. Insurance premiums are levied based on employees' wages, and enterprises must raise LIS earmarked funds themselves. There is no risk-sharing mechanism amongst the enterprises. During the structural adjustment stage some traditional industries faced many difficulties and could no longer afford to pay employees' medical insurance contributions. The immune system level of employees decreased in those working in these enterprises. With the development of the socialist market economy, the number of employees from non-state-owned enterprises increased. However, these people were not covered by the original medical insurance system, and thus equity became an crucial issue.

Fourthly, funds raised for both GIS and LIS were used and settled in the same year. Therefore, a deficit often arose, not to mention accumulation. In the social security system, the young help the elderly, and the healthy help the diseased. However, with the rapid rate at which the aging population in China is increasing, there will be too many old people who need assistance. All these will be new challenges for the reformed medical insurance system.

## **Section Two**

From the end of the 1980s, reform of the medical insurance system commenced. The main strategies were as follows:

Firstly, individuals had to pay for part of their own medical expenditure, on average between 10-20%. The percentage varied amongst different enterprises. This action was expected to decrease the acceleration of medical expenditure.

Secondly, with regard to the social pool, the unit which sets the charges for enterprises, is responsible for financing the social pool for catastrophic disease. This will facilitate socialisation of the LIS, improve the relationships among enterprises, and increase the ability of enterprises to alleviate the disease burden.

Thirdly, hospitals supervise their medical expenditure directly. In some areas, the level of medical expenditure is based on the number of employees. Enterprises pre-pay the appointed hospital, which has Residual Claims; if a deficit arises there, it will be shared between the hospitals and the enterprises. All these efforts are expected to be effective in controlling medical costs and expenditure.

Though reform measures have been successful to some extent, they cannot resolve the problems of financing, cost-constraint and ineffective management. Therefore, comprehensive and far-reaching reform is urgently needed.

In November 1993, the third plenary session of the 14th Communist Party Central Committee adopted a 'resolution on issues concerning the establishment of a socialist market economy', which pushed medical security reform to a new stage. This 'decision' points towards the following as the primary goals of medical insurance system reform:

"In the context of a socialist market economy, firstly, improve employees' health status; secondly, establish a social medical insurance system which will integrate the social pool and individual accounts; thirdly, ensure that the system covers all employees in urban areas".

The 'decision' recommends that the new medical insurance system achieves the following:

- Provides basic medical services for all employees in urban areas, and establishes a comprehensive social insurance system step by step.
- Suits the development of China's social productivity and all other domestic aspects. Government, enterprises and employees should each pay a reasonable amount of medical expenditure.
- Takes into account issues of equity and efficiency. In order to increase employees' enthusiasm, the basic medical security system should be based on the individual's contribution to society.
- Assists in decreasing the burden of enterprise by improving the management mechanism in state-owned enterprises, and establishing a modern enterprise system.
- Establishes a mechanism to restrict supply and demand with regard to health services, deepens hospital reform, strengthens internal governance, improves the quality and efficiency of medical services, and sets up a reasonable compensation mechanism.
- Pushes forward the implementation of regional health planning, accelerates the socialisation of the medical enterprise sector, and ensures that health resources are better allocated and properly utilised.
- Reforms the GIS and LIS simultaneously, in accordance with the unified principle, and unifies the financing channels and basic structure of the medical insurance system.

- Separates administration from operation. The key roles of government should be formulating policy and establishing regulations and standards. Financing, payment and management, etc. should be the prerogative of independent social medical insurance units. In particular, the management and supervision of funding must be strengthened.
- Ensures that management of the social medical insurance scheme is local, and that the state and provincial departments, organisations, and associated institutions and enterprises join the local scheme, and adhere to the local reform programme and premium rate.

In accordance with the goals and principles mentioned above, the State System Reform Committee, the Ministry of Health, the Ministry of Labour and the Ministry of Finance together sketched out the Medical Insurance System Reform Scheme. In April 1994, the State Council issued a document authorising a pilot scheme. In December 1994, the pilot study was launched in Zhenjiang City, Jiangsu province and Jiujiang City, Jiangxi province. The main contents of this pilot study are as follows:

### **1. Levels and Channels of Financing**

Both the employee and employer have responsibilities regarding finance. The ratio is based on the average medical expenditure experienced in three recent years, after deducting the irrational expenditure and adjusting for disease, age and price level. Total amount of wages in 1993 was approximately 517,000 million yuan. GIS and LIS paid 43.5 billion yuan (8.41%). The total amount of wages in 1994 was approximately 665.6 billion yuan. Medical expenditure was approximately 55.8 billion yuan (8.39%). The total amount of wages in 1995 was approximately 790 billion yuan and medical expenditure was approximately 65.4 billion yuan (8.28%). Therefore, the financing ratio is approximately 10%. At that time, both Zhenjiang and Jiujiang set the ratio at 10% and individuals begin to contribute 1% of their annual wage.

### **2. Separate the Social Pool from the Individual Account**

Half of the funds raised by employers were used for the social pool, whilst the other half and the premium that individuals paid flowed into the individual account. The social pool is managed by the Social Medical Insurance Office, whose employees try to maintain the pool and increase its value. Individual accounts and the interest accruing count as personal assets. The funds can be inherited or transferred to others, but are forbidden to be drawn in cash and used for other items.

### **3. Payment Level and Procedure**

The medical care payment system is based on a 'three-stepped channel' model. Firstly, individual accounts will be used, but only to cover the cost of treatment and basic drugs as outlined in the regulations. Secondly, when the funds in an individual account are insufficient, out-of-pocket payment will be launched, which is less than 5 % of one's annual wage. Thirdly, if medical expenditure exceeds the sum of an individual's account and 5 % of their annual wage, then it will be paid by both the social pool and out-of-pocket.

As medical expenses increase, the proportion of compensation paid by the social pool will increase too. However, expenditure, which is above the 'ceiling' level designated by the relevant government authorities, cannot be paid by the social pool. In the experimental period,

expenditure of inpatient departments and outpatient departments are paid separately in some regions, such as HaiNan province.

#### **4. Consideration of Special Groups**

According to current policies, some people can be given special consideration, such as Red Army veterans, disabled revolutionary army veterans, and the retired persons who had been working before the foundation of the new China, etc. The people mentioned above need not pay medical premiums, and have no individual accounts. The social pool pays their medical expenditure. In addition, retired people need not pay a medical premium either; moreover, the ratio of medical expenditure they pay is only a half that paid by employees. Employees, covered by medical insurance, suffering from 'special illnesses', as defined by the state, or receiving family planning, pay nothing; the social pool will cover such contributions.

#### **5. Strengthening Management and Supervision of Supply**

In order to strengthen the management of medical facilities and to control the inflated cost, it is recommended that reform measures incorporate the following strategies:

- Form contracts with hospitals based on an assessment of their medical facilities.
- Increase the number of clinics paid from the individual accounts, allow individuals more freedom of choice regarding medical service providers, and, generally, develop the supply of medical services (high quality, efficient service and reasonable pricing) to attract patients and encourage appropriate competition between providers.
- Adjust medical care pricing, and increase the cost of medical and technical service provision whilst decreasing the prices of medicine.
- Develop technical standards of medical diagnosis and treatment, formalise criteria for medical expenditure, and establish a list of basic drugs and the scope for reimbursement in order to control excessive increases in medical expenses.
- Change the payment system within hospitals. For example, pricing per visit in outpatient departments and price per 'bed-day' in inpatient departments should be implemented. The prices of treatment of some diseases should be based on cost of the treatment of a standard case.

Zhenjiang and Jiujiang city had achieved initial success upon implementing the medical insurance reforms, and so the State Council decided to extend the experience, and on April 8th, 1996 a conference was held.

However, problems arose during the course of expanding the experience, such as a low capacity to constrain costs and difficulty in implementing 'the Principle of District Management' etc. On December 14th, 1998, the State Council circulated the resolution on the establishment of the system of basic medical insurance in urban areas, indicating that medical insurance reform had entered a period of full-scale extension. The resolution required that four principles be adhered to in reforming the system of medical insurance.

1. The level of basic medical insurance must be appropriate to the level of productivity development in the primary stage of socialism
2. The system of medical insurance must cover all employers and employees in urban areas. Meanwhile, the government should accelerate the reform of principles so that local government manages the medical insurance system.
3. Employees and employers should share premiums.
4. Medical insurance must be based on a combination of the social pool with individual accounts.

In the resolution, basic medical insurance fund contribution rates were adjusted on both sides (those of the employer and employee). According to regulations, employers must pay approximately 6 percent of the annual total wage, while employees must pay 2 percent of their annual wage. 30 percent of premiums from employers enter the individual accounts. As regards compensation, the social pool must be completely separated from individual accounts, and they cannot be used against each other. When medical expenditure is more than 10 percent of an individual's annual wage and less than 4 times one's annual wage, the employee will be entitled to the use of the social pool. Other important issues are specified in the 'resolution' with regard to the management and supervision of the medical insurance fund, the management of medical care providers, preference for special groups of people, and corporation supplementary insurance, etc. The resolution greatly promoted the development of basic medical insurance in urban areas.

In February, 2000, the office of the State Council office promulgated the guiding suggestion on health reform to eight ministries and commissions. It was recommended that the reform of the system of basic medical insurance, the system of medical service and the system of medicine manufacture and distribution be developed simultaneously to accelerate the development of the medical insurance system.

By late June 2001, the system of medical insurance, which has covered 50.26 million employees, had been established. More than 88 percent of the municipalities had launched the programme. Moreover, it will be officially initiated in 90 percent of municipal areas by the end of this year, and will cover 80 million employees.

### **Section Three**

The basic medical insurance system for employees in urban areas has existed and been developed for over seven years, since the pilot study in Zhenjiang City and Jiu Jiang City. It has been three years since the State Council promulgated the 'Resolution on the Establishment of Basic Medical Insurance for Employees in Urban Areas'. Although rapid progress has been made, there are many difficulties and contradictions in the reform process. These include the complex socio-economic environment, the constraints of employee compliance, and existing traditional ideas. The reform scheme in general and specific policies still require continuous scrutiny in the future.

***Basing the administrative system on 'vertical' or 'horizontal' principles.***

Under a centrally planned economy, local government administrations were usually separated from industry management. According to the principles of the traditional government medical insurance system, medical expenditure was funded by the government at different levels. GIS funds were allocated to governmental departments, public institutions and their subordinate units. In the past, all enterprises were allowed to finance and spend the Labour Medical Insurance Fund by themselves. Since, the financing level is limited by specific policy, there are significant differences in the level of treatment and security between enterprises or trades. In order to change the way that local government administration was separated from Industry management, 'the Principle of District Management' (i.e. all enterprises were managed by the Labour and Social Security Department of the local government) was formulated. This change is beneficial to the free flow of employees and the reform of the enterprise manufacture and management system.

Meanwhile, premiums are funded and reimbursed in the unified method. The benefits of the scheme are re-distributed amongst all units, which improves social equality. Due to the disparity in economic development in different areas and the associated differences in size of local social pools, some well-off enterprises are reluctant to enter into the social pool in poorer areas. Even for the various levels of financial authorities in the same district, there are many barriers to the implementation of 'the Principle of District Management'. For example, there are four levels of financial authorities, central, provincial, municipal, and district governments, all working in the provincial capital municipality. So far, there is no single provincial capital municipality implementing the locally managed scheme, indicating that localisation of the scheme will be very difficult.

In the author's opinion, we ought to change the premiums paid into the basic medical insurance tax, and these should be levied by a competent financial authority. The government authorities should not manage the work of the medical insurance scheme directly. The above suggestions will be helpful in implementing 'the Principle of District Management', and in persuading employees to enter the medical insurance scheme. Meanwhile, we should also stick to the principle that administration and operation are separate from each other. An institution governing medical insurance operation should be established, and its employees should receive similar benefits to those granted to civil servants. The institution should have the power to operate the medical insurance fund, and to enhance the management system on both sides (the supply of and demand for medical care) at a reasonable cost, so as to ensure the balance of premium in collection and payment.

### ***Combining the social pool with the individual account.***

The new system of basic medical insurance for employees is based on the combination of the social pool with an individual's account. In theory, the model of combination is helpful in establishing the system of benefit, increasing employees awareness regarding medical expenditure, reducing the negative influences of egalitarianism formed under the centrally planned economy, and reducing the waste of premium. In addition, due to the combination of the diseases risk pool with employees accumulation fund, the model will meet the requirements of the aging population of China, and relax the burden of transferring medical expenditure among different generations in the traditional system of social insurance.

However, during the pilot stage, there were difficulties in putting this combination model (overall social planning combined with individual personal accounts) into operation. Some experts prefer the 'Integration Model', while others prefer the 'Separation Model'. The level of funding in the Integration Model is relatively low, and the social pool has insufficient funds whilst, at the same time, the premium from some individual accounts is excessively sufficient. The Integration Model is very complicated with regards to management as well. Some people consider that it is essential that the expenditure on inpatients be separated from that of outpatients, and at the same time, that the Integration Model be established to some extent. This could relax the pressure resulting from the shortage in the social pool. Meanwhile, it also reduces the positive role of the individual accounts. The combination of the social pool with individual accounts will conform to the challenges of both feasibility and necessity.

### ***The relationship between basic insurance and supplementary insurance.***

The current basic medical insurance scheme is aimed at risk-sharing and equity, although various demands by diverse groups of people are still barely met under the scheme. One of the principles of reform is 'broad coverage', but in fact, the number of employees covered by medical insurance is very limited. At present, there is a two-step plan. In the first step, the medical insurance system should cover those who were originally covered by the GIS and LIS, with the exception of university students (previously covered by the GIS), and the direct dependants of employees (previously partly covered by the LIS) who are excluded. In the second step, the coverage of medical insurance will be extended to all employees in urban areas. But even then, there will still be a considerable number of residents and a floating population who are not covered by any medical insurance. In the course of the reform, there are limitations in the financing levels and compensation items. For example, according to the rules, patients who suffer from chronic disease and aren't treated in hospital, must pay a certain proportion of their medical costs in cash; this includes those individuals whose expenditure is between the 'deductible' and 'ceiling' levels. Because the expenses, which are above the 'ceiling', aren't included in the scope of compensation, we have to promote the development of a supplementary insurance system, while implementing the system of basic medical insurance.

Supplementary insurance not only reflects the differences among groups in actual life, but also helps meet the requirements of medical care at different levels. In addition, supplementary insurance can help to solve some problems such as differing grade units in a region, different industry units in a region, etc. In addition to being beneficial to the establishment of the system of basic medical insurance, supplementary insurance can play a further positive role in restructuring revenue and welfare among employees. Richer employers and employees can raise the investment in supplementary insurance, which will reduce the gap in available revenue between the well-off and others, and increase fairness in consumption of medical care. Employees will alter the structure of consumption, increasing the proportion of social service consumption, such as medical care, whilst producing a relative reduction in other consumption levels. All these factors will contribute to a change in consumption patterns, a readjustment of the production of society, and an improvement in the quality of people's lives and social security.

### ***Medical security for the poor and those in ill-health.***

A great many people in urban areas live in poverty, owing to a number of factors. The proportion of impoverished people is increasing year by year in urban regions. They are mainly composed of four groups:

1. The elderly or patients who have lost the ability to work, who have no children or relatives to support them.
2. Employees who have been made redundant in the course of industry restructuring.
3. Floating labourers from rural areas, who have poor education and skills.
4. The disabled and those who suffer from serious chronic disease.

In reforming the system of basic medical insurance there are few programmes which benefit the poor. In the author's opinion, we should strengthen management with regard to both demand and supply. The following suggestions may be helpful:

- While cost-constraint analysis is conducted, the Ministry of Civil Administration and the Red Cross Society should jointly establish 'common people hospitals' to provide the most basic medical services. Since 'common people hospitals' will provide services at a price lower than cost, relevant competent financial authorities should subsidise them.
- A ruling should be passed by the department operating the basic medical insurance system to the effect that the premium on the impoverished is reduced or that they are exempted. As an alternative to exemption, they could be compensated with half of their medical expenditure.
- A basic medical care relief fund for the impoverished should be established and the general public mobilised with regard to contributing to it. Meanwhile, in order to eliminate fraud, relevant government authorities should lay down strict rules to identify those people who are covered by the fund.
- The impoverished should be brought into community health care programme, to make best use of limited relief funds. Since experience in constructing a system of medical insurance for the impoverished is lacking, in order to embody the fairness of medical care, we will improve it through experiment.

Though rapid progress has been made in reforming the system of basic medical insurance for employees, the medical insurance system does not meet the requirements of economic development or of everyday people's lives. Further investigation into this crucial topic will continue in China in the future.



**FINANCING HEALTH CARE IN CHINA'S CITIES  
BALANCING NEEDS AND ENTITLEMENTS<sup>1</sup>  
G. Bloom, Y. Lu and J. Chen**

1. INTRODUCTION

China is simultaneously undergoing a demographic and epidemiological transition, a transition to a market economy and a transition to an urban, industrial society (Hussein 1999). This paper situates efforts to reform urban health systems in the context of these transitions.

There is growing concern about the rise of medical costs and its consequences (Hsiao, 1995; Liu and Hsiao 1995; Hu and Gong 1999). During each year between 1991-6 *per capita* health expenditure in urban areas grew more rapidly than income (Zhao 1999). Gao et al (2001) show that the average *per capita* income of urban households (corrected for inflation) rose by 6.5% a year between 1992 and 1997, whilst the average cost of an outpatient visit and hospital admission rose by 10.2% and 13.8%, respectively. The rise in medical costs has contributed to a rapid growth in disbursements by health insurance schemes. This has created difficulties for employers. State owned units (enterprises and government agencies) spent 5.8% of salary costs for health in 1980 and 9.1% in 1996 (Xu 1998).

Two recent surveys show that the proportion of urban residents fully covered by government insurance or labour insurance decreased from 52% to 39% between 1992-7 (Gao et al 2001). During the same period, the proportion reporting no health insurance rose from 28% to 44%. These percentages underestimate the proportion of city dwellers without health insurance, since the survey only covers registered urban residents. During the same period there was a growth in the proportion of urban residents who did not seek medical care when ill. In 1992 20% of people referred to hospital declined admission and 40% of them said it was due to cost; five years later 32% declined admission and 65% said it was due to cost.

These changes have led to pressure for change. Many state-owned enterprises and local governments find it hard to pay for their employees' and pensioners' health care. Urban residents are increasingly worried about the high cost of medical care. This paper suggests that present efforts to reform urban health finance can be understood as an effort to reconcile the interests of stakeholders in newly agreed rules of entitlement to benefits. This is taking place in the context of economic reform and changes to the pattern of medical needs. Sections 2 and 3 discuss medical need and entitlement to health benefits, respectively. Section 4 discusses how policy-makers are dealing with the problem of financing existing claims for benefits whilst establishing a new system of rules-based entitlements. Section 5 discusses the implications of this analysis for urban health reform.

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## 2. CHANGING MEDICAL NEEDS

Williams (1991) defines medical need as the existence of ill-health for which an effective treatment is available. The amount of need is a measure of the physiological and psychological status of individuals, their expectations of what constitutes well-being, the availability of effective interventions and the social arrangements that determine the roles of households and health providers in caring for the sick. According to this definition, need is determined by the burden of sickness and the social consensus about the kinds of support sick individuals require. This section discusses how changes in urban China are affecting the factors that determine need.

### 2.1 Demographic and epidemiological transition

The structure of China's population is changing rapidly due to reductions in mortality and birth rates. There are proportionately fewer children and more elderly. The share of the population over 65 years old doubled and the proportion over 75 years old increased from 0.8% to 2.1% between 1964 and 1997 (table 1). 8.0% of registered urban residents were over 65 years and 2.3% were over 75 years in 1997.

Table 1, Population composition of China by age (%)

Age	All China			Cities only
	1964	1982	1997	1997
<45	82.3	80.2	75.0	70.7
45-65	14.1	14.9	18.2	21.4
65-74	2.7	3.5	4.8	5.7
75+	0.8	1.4	2.1	2.3
Total	100.0	100.1	100.1	

Source: China Statistical Yearbook, 1998, China Statistical Publishing House, Beijing;  
China Health Statistical Abstract, National Health Statistical Centre, 1998, Beijing.

The ageing of the population is expected to continue. The China Population Information and Research Centre projects that the percentage over 65 years will rise to 8% by 2010, 11% in 2020 and 20% in 2040. Around 30% of people over 65 were over 75 years, in 1990; this proportion is projected to rise to 35% in 2010 and around 50% in 2050 (Sun 1998).

The demographic transition has been accompanied by an epidemiological transition. Improvements in the standard of living and specific public health measures have contributed to a substantial fall in the incidence of infectious diseases in urban areas. The ageing of the population and high rates of risky behaviour, such as smoking, have led to increases in the prevalence of non-communicable diseases. Recent studies amongst the elderly identify a number of problems with chronic disease (Dong et al 2000; Ou and Zhu 2000; Zhou and Wang 1998). They also report high levels of non-use of health services due to cost.

Data from advanced market economies suggest that average medical care costs rise rapidly with age (Barer *et al* 1987). Those over 75 years old have a particularly great need for expensive health care. The aged account for a substantial share of medical care costs in urban China. A brief analysis of the disbursements of Shenyang's government insurance scheme by one of the authors indicated large differences in utilisation between age groups. Pensioners spent 2.3 times as much as current employees; veterans of the liberation war (many over 75 years old) spent

twice as much again. Pressure on the medical system is likely to grow as the numbers of old-old increase.

The high cost of care for the elderly reflects their complicated health problems and the cost of effective interventions. It also reflects changes to family structures, which have made people less able and willing to care for very dependent people at home (Xiong 1999). The lack of affordable medical support for the aged puts a heavy burden on family caregivers, particularly women.

Demographic transition is affecting pensions and health services differently. The rise in the number of pensioners is well advanced. The ratio of pensioners to workers rose from 1:12.8 to 1:4.8 between 1980 and 1995 (West 1999). The cost of health care continues to increase beyond retirement age and the rise in cost of health insurance is likely to lag 10-15 years behind the rise in pensions.

## **2.2 Economic development and restructuring the labour market**

China's cities have experienced rapid economic growth for more than two decades. This has increased the availability of effective interventions and altered the understanding amongst urban residents of what constitutes medical need. It has also led to an influx of migrants and the emergence of a more segmented labour market.

### *2.2.1 New interventions and changing expectations*

Disposable income per urban resident more than trebled, in real terms, between 1978 and 1998 (China Statistical Yearbook 1999, table 10-2). Health expenditure grew even faster (Zhao 1999). This was associated with a change in the kinds of health care people use.

Urban residents can afford increasingly sophisticated medical care. Their tastes have been strongly affected by changes in communications, which have increased their knowledge about lifestyles elsewhere. There has been a rise in marketing of medical products to health facilities and the general population. These factors have combined to alter the expectations of providers and users of health services.

The locus of care has largely shifted from clinics and simple inpatient facilities, to outpatient departments and wards of sophisticated hospitals. The consumption of drugs, particularly expensive branded products, has grown rapidly. In 1993, 52% of total health expenditure in China was on pharmaceuticals (World Bank 1997). Expenditure on other inputs has also risen rapidly. The Ministry of Health (1998) recently reported that 50% of 3640 county and higher level hospitals had a CT scanner. This reflects the proliferation of diagnostic and treatment technologies.

The shift towards a more expensive style of medical care reflects the availability of expensive, but effective, interventions. It also reflects cost increases related to government policies. Government health budgets have risen less rapidly than salary costs. Despite this, some local governments have encouraged health facilities to employ more staff. Health facilities have had to generate revenue to meet the income expectations of their employees (Bloom et al 2000). The government has controlled the price of a consultation with a health worker and a day in hospital, whilst allowing health facilities to earn a mark-up on drug sales and the use of sophisticated equipment.

This has encouraged costly forms of practice. During the early 1980s, when new patterns of service provision were being established, there were few pensioners over 75 years of age and enterprises could afford sophisticated hospital care. By the 1990s an expensive style of care had become the norm.

### *2.2.2 Migration and social segmentation*

The restructuring of the labour market has led to the emergence of vulnerable groups (Cook 2001). There are many laid-off workers and unemployed. There is a great deal of movement between rural and urban areas. The number of migrants was around 80 million in the mid-1990s (Wong 1999).

Health-related problems seem to be linked to social segmentation in a number of countries (Wilkinson 1996). This is due to the direct effect of deprivation on health, higher levels of exposure to environmental and occupational hazards, and the greater tendency of socially disadvantaged groups in some countries to engage in behaviour that is risky for health. The experience of the former Soviet Union, where male mortality rose sharply during a period of economic crisis and social change, demonstrates that socio-economic factors can have a major impact on health (Shkolnikov et al 2001). The international epidemic of HIV/AIDS, also illustrates the link between ill-health and social conditions that encourage drug abuse and the growth of the commercial sex industry.

There is little systematic information on the living conditions and health situation of urban vulnerable groups in China. A significant number of people live in poverty. There are indications that these groups have more health problems and less access to services than other city dwellers. Some studies link psychological problems to the experience of being laid off (Zhang et al 1999; Chen and Guo 2000). Studies of the floating population tend to focus on the incidence of infectious diseases. Chen (2000) associates the resurgence of tuberculosis and sexually transmitted diseases in the cities, with rapid urbanisation. Wang et al (2000) report that 60% of STD cases were associated with migrants in Xiaoshan City, Zhejiang.

Urban public health services and preventive programmes have not expanded to cope with this additional population. A recent study in Nantong reports that their share of the government health budget has fallen (Shu et al 2001). Migrants do not have the same access to basic health services as registered residents. For example, migrants to Shanghai and Chengdu use reproductive health services much less than permanent residents (Zhan et al 2000; Tian et al 1999). The household surveys cited in section 1 show that many people are deterred from using health services because of their cost. Several analysts suggest that the urban poor need some form of health care safety net (Yu et al 1999; Xu et al 1999; Liang et al 1999).

## **3. CHANGING PATTERNS OF ENTITLEMENT TO SOCIAL BENEFITS**

This section discusses how economic changes are affecting entitlements to social benefits. Entitlements are legitimate claims by individuals on the state or other institutions. A government's ability to honour entitlements is an important source of its legitimacy. Attempts to renegotiate entitlements involve political costs. China has assigned entitlements to social benefits mostly on

the basis of a person's place of residence and the kind of work they do (Wong 1998; Solinger 1999; Bloom 2001).

One aspect of the transition to a market economy has been the transformation of entitlements from informal claims on employers and government into ownership of assets and rules-based rights to government assistance. Two examples are the sale of housing to employees at subsidised prices and the establishment of safety nets for people living below a defined poverty line. These changes are institutionalising new patterns of differential access to social benefits (Wang YP 2001).

A paper by the Project on Social Development in China at the Chinese Academy of Social Sciences (CASS 1998) argues that China has reached the *'middle stage'* of its reforms. It argues that *"difficult questions of patterns of interest"* must be addressed and that successful reforms will depend on the management of the *"readjustment of basic interest relationships"*. It stresses the need to ensure that all social groups benefit from development and identifies the following interests to be reconciled during the establishment of a new social security system over the next 10-15 years:

- the very high financial burden of social benefits on state-owned enterprises compared to other categories of enterprise;
- the difference in social benefits between urban and rural residents and the rapid growth of employment in enterprises outside the cities;
- the differences in earnings and access to benefits between well-developed and under-developed regions and the need for substantial investment to close the gap;
- the effort by governments of rich localities to limit the outflow of tax revenue and by national government to reduce inter-regional inequality.

This section applies this perspective to the reform of urban social benefits

### **3.1 Balancing claims of rural and urban residents**

The household registration system, which limits the movement of people, underpins a sharp divide between rural and urban residents (Cook and White 1998; Chan and Zhang 1999). Rural residents have been entitled to little more than access to the means of agricultural production. This translates into a right to a fair share of land in a locality. The government makes modest fiscal transfers to poor areas and organises national poverty reduction programmes. Local governments and collective bodies finance basic support for the poorest people. In contrast, urban residents have been entitled to a wide range of benefits in what Solinger (1999) calls 'the urban public goods regime'. The clear demarcation between urban and rural entitlements is eroding.

There is an increasing divergence between the number of registered urban residents and the total urban population. Hussain (1999) points out that 32.2% of the population is classified as non-agricultural by household registration, but 53.4% of the labour force actually works in services and industry. This is due to the rapid growth of township and village enterprises. Hussain estimates that 51% of the population live in urban settlements, with high population density and a preponderant share of non-farming activities in the local economy. He points out that employees of enterprises in 'rural' localities are mostly entitled to fewer social benefits than are urban residents.

Large numbers of rural-urban migrants work in a variety of settings (Solinger 1999). Some have become registered residents in the smaller centres, however most retain their rural registration. Chan and Zhang (1999) point out that the urban workforce is stratified into categories of registration such as fully registered, newly registered, temporary residents and unregistered peasants. These categories have quite different entitlements to benefits.

Urban registration is still associated with much higher levels of entitlement to benefits. For example, only a small proportion of Shanghai's migrants has health insurance (Wang and Zuo 1999). The labour market is much more complex than it was. There is no longer a simple identity between urban registration and non-agricultural employment. The challenge is to create a rules-based system of entitlements that reflects this complexity (CASS 1998).

### **3.2 Changing patterns of entitlement amongst urban residents**

City dwellers were entitled to a job under the command economy (Leung 1995). In 1978, 78.3% of the urban labour force worked for state owned enterprises or the government (Hussain 1999). Entitlements to most benefits are based on place of employment. The government and state owned enterprises provide comprehensive packages of benefits. Other employers provide less generous benefits. Local governments also finance benefits for specific social groups. Their health departments fund medical care for veterans of the liberation war and certain retired government officials. Departments of civil affairs provide a basic living allowance to people whose household income falls below a locally determined minimum living standard.

Urban residents have a strong sense of entitlement to social security and services. The report by the Chinese Academy of Social Sciences cited above highlights this: "*the elimination of workplace security in cities means the elimination of employees rights and benefits. Widespread resistance to this measure is therefore a matter of course*" (CASS 1998, p.89). Croll (1999) and Howell (1997) cite recent outbreaks of civil disturbance and strikes in defence of jobs, pensions and health insurance as evidence of the strength of feeling on this issue. Government strategies for social sector reform have been strongly influenced by these attitudes.

The transition to a market economy has led to changes in the pattern of entitlements (Howell 1995; Selden and Lou 1997). There has been a shift from permanent employment to fixed term contracts. Between 1986 and 1997 the proportion of employees of state enterprises on short-term contracts rose from 7% to 51.6% (Hussain 1999). Enterprises now have the right to lay off workers. Urban residents are no longer guaranteed a job. Government has acted to prevent large-scale unemployment (Wong 1999). It has encouraged people to retire; it has pressured government institutions, such as hospitals, to increase their workforce; it has subsidised loss-making enterprises and it has established a system of unemployment benefits.

A growing number of urban residents work for neither government, nor state-owned enterprises (table 2). The different categories of enterprise vary considerably in the age and sex of their employees and the levels of pay and benefits they provide. Government institutions and state-owned enterprises tend to have older employees with well-established entitlements to benefits. Their new employees are more likely to be on short-term contracts, associated with fewer benefits. Some of these new employees may not have full urban registration.

Table 2, Number of employed persons by type of enterprises (million)

Year	Number of employees in different type of enterprises in urban areas							
	State owned	Collective owned	Joint owned	Share holding	Foreign funded	Other types of ownership	Private	Individuals
1980	80.2	24.3	-	-		-	-	0.1
1985	89.9	33.2	0.4	-	0.1	-	-	4.5
1990	103.5	35.5	1.0	-	0.1	-	0.6	6.1
1995	112.6	31.5	0.5	3.2	5.1	0.1	4.9	15.6
1996	112.4	30.2	0.5	3.6	5.4	0.1	6.2	17.1

Source: China Statistical Year Book, 1997, China Statistical Publishing House, Beijing

Other categories of enterprise tend to be newer and to employ younger people. Successful companies pay high salaries but provide fewer long-term benefits. One of the authors visited a joint venture, which employed mostly young female migrants from surrounding counties. The company provided excellent maternity benefits but was not building a fund for future health care needs.

Older workers and those who have been in the same job for a long time are more likely to have health insurance. A survey of 22 cities in 1992 by Hu et al (1999) found that older workers are more likely to have health insurance than younger ones. A survey in Shanghai found that 47% of those hired within the past ten years had health insurance, compared with 80% of those hired before then (Wang and Zuo 1999).

State owned enterprises are finding it increasingly difficult to finance health insurance. Over a third of the workforce of some enterprises are retired. Their health benefits can be costly. Many state-owned enterprises are losing money and cannot afford their employees' medical benefits. Late payment or non-payment of medical costs is common.

The government is transferring the organisation of social security benefits from employers to newly created social security institutions. One of the government's challenges in formulating strategies for social security reform is to reconcile the interests of different age cohorts and categories of enterprise and people with varying registration status. Selden and Lou (1997) put this forward as an explanation of the difficulty it is having in establishing a uniform pension scheme. They suggest that compliance rates below 100% reflect the unwillingness of new enterprises to contribute to a fund from which the main beneficiaries will be current pensioners.

Yu and Ren (1998) make a similar point about health insurance. They suggest that a company's decision to join a local scheme is influenced by the size of contributions, the age of their workforce and whether they own a health facility. A scheme in one middle-size city illustrates this. Profitable state-owned enterprises, with many pensioners, joined because they had to contribute less than they had been spending on health benefits. Joint ventures with a young workforce refused to join, as did loss-making state owned enterprises. The scheme was

reformed to reduce contribution levels and strengthen the legal pressure on enterprises to join. The coverage increased, but it is too early to assess whether the scheme is sustainable.

#### **4. ENTITLEMENTS TO PRESENT AND FUTURE BENEFITS**

The government is managing two simultaneous processes in creating new social security arrangements. It is attempting to establish a system of rules-based entitlements, which people trust. It is also endeavouring to finance current entitlements. Many problems of newly established schemes are due to conflicts between these processes.

Policy debates mostly concern the broad shape of future social security arrangements. They tend to reflect the views of national ministries and heads of provincial governments (Liu and Bloom 2001). Implementation, on the other hand, is strongly influenced by local government, social groups with political influence and enterprises. Young and old, men and women, and employees of different categories of enterprise have different interests. The following sub-sections discuss policy and implementation in turn. They focus on pensions, to illustrate the issues involved in managing these processes, without the added complexity of the changing pattern of medical needs.

##### **4.1 Policy vision: the shape of future arrangements**

Discussions about pension policy have focused on the arrangements to be established after a 10-15 year transition. Much Chinese and international thinking is based on the understanding that an individual's entitlement to a pension is a form of asset, a claim on future revenue flows (World Bank 1997b). This view of pensions is articulated in the concept of the implicit pension debt, which calculates the present value of commitments to future payments.

China's future system has to balance social solidarity against the need to take differences in pay into account (CASS 2000). The government advocates the establishment of a basic pension, funded by government and enterprises, individual pension accounts financed by individuals and employers and voluntary private top-up pensions.<sup>2</sup> The idea is to permit the size of pensions to vary with salaries whilst ensuring that the entire eligible population has a basic pension. It leaves unresolved issues regarding who is eligible for a basic pension and how it should be financed.

The great differences in average earnings between localities are a major barrier to the creation of a unified pension system. The provision of a uniform basic pension assumes a relatively integrated labour market. Otherwise residents of poor localities would receive a higher share of local salaries and residents of rich localities would receive a lower one. These differences would be heightened if coverage were extended to employees of rural-based enterprises and rural-urban migrants. This would leave residents of expensive cities relatively unprotected and either put a substantial financial burden on governments of poor localities or imply substantial resource transfers between localities.

The inclusion of peasants in the pension scheme would create greater difficulties since many rural households live on much less than the basic pension. James (2001) points out that people living on very low incomes may prefer to spend money on present needs or invest it productively, rather

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<sup>2</sup> State Council Documents No. 26, 1997 and No42, 2000

than pay it into a pension fund. It may be more appropriate for government to protect the aged in rural areas with a publicly funded minimum pension or a targeted safety net for the aged poor.

The most difficult questions regarding the basic pension concern finance. Should each locality fund basic pensions for its own residents? Or should contributions be related to a local government's ability to pay? If local governments are fully responsible, they have to reconcile the need to finance pensions for city dwellers against calls on their resources to provide benefits to farmers. Richer governments could be required to subsidise pensions in poor areas. The advantage of this form of redistribution has to be weighed against its impact on the willingness of governments to transfer funds to poor rural counties. Discussions about the financial basis for social security are closely linked to broader discussions about the reform of public finance.

#### **4.2 Entitlements, assets and financing the transition to a sustainable system**

China is reforming its social security system late in the demographic transition. It has to finance current claims for pensions whilst building up pension funds. It also has to address the problems of the majority of the elderly, who do not have pension entitlements.

Ma and Zhai (2001) cite several papers that estimate the implicit pension debt at between 50 and 80 percent of GDP. They estimate the additional costs of transition to a funded system to be around one-third of GDP, because some pension commitments will be financed by contributions by a growing labour force. These estimates do not include the needs of the majority of the elderly, who have no pension. Ma and Zhai point out that government has not formulated an explicit strategy for financing the cost of pensions during the transition to a funded system.

One possible explanation of government's unwillingness clearly to define pension entitlements and the means of financing them is that it needs to renegotiate entitlements as it manages transition. For example, it is keeping the retirement age low to reduce open unemployment, but the long-term sustainability of funded pensions depends on raising the retirement age. This is a good reason for delaying the translation of entitlements into firm claims on financial assets. Present entitlements to pensions are fuzzy and arrangements for financing them are *ad hoc*. This gives stakeholders time to adjust their expectations to changing economic realities. For example, urban dwellers will have to come to terms with competition from rural-based enterprises.

The government is heavily subsidising pensions. The Ministry of Finance transferred rmb 17 billion to cover pension shortfalls in 1999 and rmb20 billion in 2000 (Ma and Zhai 2001). However, it has not made irreversible commitments to fund present entitlements in perpetuity.

The lack of clear rules has contributed to feelings of insecurity. It has encouraged stakeholders to seek ways to minimise short-term financial burdens. For example, municipalities with profitable firms and/or younger populations have resisted arrangements that would involve substantial transfers of resources to other localities (Wong 1999). New enterprises have attempted to avoid excessive liabilities for pensions and health insurance by keeping out of new schemes. Some enterprises may have been set up outside municipal boundaries for this reason.

Some *ad hoc* measures have had a deleterious effect on the establishment of a rules-based system. Schemes have used funds from individual accounts to finance existing pensions.

According to Ma and Zhai (2001), rmb 199 billion had been withdrawn from individual accounts to finance existing pensions, in 2000. Little is known about how these arrangements have affected the attitudes of young workers towards making pension contributions. These examples illustrate the difficulties associated with managing simultaneously the establishment of a new social security system and the funding of existing claims to benefits. One requires transparency and the other requires opaqueness.

It may be helpful to separate the issues of financing existing entitlements and establishing actuarially sound social security institutions in thinking about policy options. Local governments need to find ways to finance existing entitlements, whilst creating a rules-based system for younger workers. There are several options for financing existing pensions (CASS 2000; Wang X 2001; Ma and Zhai 2001). Young workers and their employers could be asked to make higher contributions to social security schemes than would be required to build up their own entitlements, or they could be required to pay higher taxes. Local governments could issue bonds with promises to repay out of future taxes. Assets could be transferred to the social security fund in the form of ownership of a company, shares in a company or cash earned by selling a company.

The latter options represent a translation of fuzzy pension entitlements into ownership of funded assets. They would institutionalise differences in entitlement between social groups. Government has to reconcile the interests of pensioners and of social groups that do not have work-related benefits in establishing levels of pensions to be funded this way.

## **5. MEETING NEEDS AND ENTITLEMENTS TO HEALTH SERVICES**

Health insurance is more complex than pensions. The cost of pensions is directly related to the number of people above retirement age and the rules defining the size of payment. The cost of health benefits depends on the many factors that determine needs and expectations of services to address them. This section presents a framework for thinking about the reform of urban health services.

### **5.1 Health needs and entitlement groups**

Matrix 1 maps entitlement groups based on employment, poverty/vulnerability and place of residence against three categories of medical need: treatment of chronic disease and major illnesses, prevention of non-communicable disease and prevention and treatment of infectious diseases including HIV/AIDS. The matrix points to some issues that policy-makers need to address. It does not include all medical needs.

A number of factors have led to a rapid rise in the cost of medical care for an ageing urban population. This rise is likely to continue as more people reach 75 years. A substantial proportion of the urban population has had the right to virtually free health care. An expensive, hospital-based style of medical care has been established as the norm. Older employees of government and state-owned enterprises believe they are entitled to this kind of care. There are strong pressures on employers and local governments to honour this entitlement.

The government and long-established state-owned enterprises have a disproportionate number of pensioners and bear a large share of the cost of health insurance. Some companies can no longer afford this benefit. Others are heavily disadvantaged in competition with newer firms. This has led to pressure to spread the burden more evenly. This involves the translation of fuzzy claims on enterprises into rules-based claims on an insurance scheme.

In creating health insurance schemes, the government has to reconcile the perspectives of insured people, who have a strong sense of entitlement to medical care, and younger workers, rural-urban migrants and workers outside the cities who have alternative claims on public resources. As with pensions, there is evidence that many newly established health insurance schemes have financed claims by drawing down individual savings accounts. These schemes actually operate as pay-as-you-go health benefit schemes. The government increasingly recognises this reality. It needs to find new ways to induce young workers and their employers to finance benefits for the elderly.

Matrix 1, Health needs and entitlement groups

Categories of need			
Basis of Entitlement	Chronic disease / major illness	New health problems/ rise in non-communicable diseases	Resurgence of infectious disease and spread of HIV
<b>a) Employment status</b> {employee, family member of employee, unemployed, pensioner}	<ul style="list-style-type: none"> <li>insurance depends on kind of employer</li> <li>fewer health benefits for family member of employed</li> <li>fewer health benefits for employees of rural enterprises</li> <li>most farmers are not insured</li> </ul>	<ul style="list-style-type: none"> <li>Insurance covers IP care, some OP care but no prevention or community support</li> <li>weaknesses of preventive programmes</li> </ul>	<ul style="list-style-type: none"> <li>population movements between rural and urban areas</li> <li>sex industry</li> <li>public health systems lagging behind rapid urbanisation</li> <li>possible need for AIDS-related services</li> </ul>
<b>b) Poor or vulnerable</b> {poor, disabled}	<ul style="list-style-type: none"> <li>needs of disabled</li> <li>illness and problems of access linked to poverty</li> </ul>	<ul style="list-style-type: none"> <li>diseases related to occupational hazards and pollution</li> </ul>	
<b>c) Registered residence</b> {urban, rural, migrant}	<ul style="list-style-type: none"> <li>compulsory insurance linked to registration</li> <li>lack of insurance for migrants</li> </ul>	<ul style="list-style-type: none"> <li>diseases related to behaviour influenced by social factors (drug/alcohol abuse, smoking, diet)</li> </ul>	

The large flows of migrants into the cities and the emergence of vulnerable groups are another source of pressure on health services. These people have a number of health-related needs and most are not insured. Decision-makers have to balance claims by those with insurance against pressures to meet the needs of the uninsured.

## 5.2 Thinking about health reform

This section explores the implications of the web of entitlements and needs for health development strategies. Several Ministries share responsibility for the urban health system: Health - service delivery, Labour and Social Security - insurance, and Civil Affairs - the needs of the poor and vulnerable. This division reduces the risk that disproportionate weight will be given to the interests of service providers. It encourages integrated approaches to social security and poverty reduction. However, it fosters a split in policy discussions between demand and supply-side issues and between insurance-funded curative care and government-funded preventive health services. Matrix 2 identifies five objectives for reform that address the changing pattern of

needs and entitlements. It maps these objectives against possible demand and supply-side initiatives.

Matrix 2, Agenda for urban health development and reform

<b>Objectives for reform</b>	<b>Implications for demand side</b>	<b>Implications for supply side</b>
<b>a) Effective public health and preventive programmes</b>	<ul style="list-style-type: none"> <li>• Fund local government public health services adequately</li> <li>• Define the responsibilities of these services more clearly</li> <li>• Co-ordinate health activities funded from different sources with the ultimate aim of integration</li> </ul>	<ul style="list-style-type: none"> <li>• Reform public health services to address new needs</li> <li>• Monitor emerging needs linked to social change</li> </ul>
<b>b) Access to effective and affordable health services for the elderly</b>	<ul style="list-style-type: none"> <li>• Define basic health entitlement and redefine benefit packages to remove incentives for hospital-based care</li> <li>• Establish sources of finance (contributions, tax, transfer of assets)</li> <li>• Define relative responsibilities of local government and insurance funded services</li> </ul>	<ul style="list-style-type: none"> <li>• Restructure health system (facilities and service delivery) to give greater emphasis to primary care services</li> <li>• Strengthen facility management and improve efficiency</li> <li>• Introduce new payment mechanisms to reduce incentives for cost increases</li> <li>• Define roles of local government services in terms of prevention and community support systems</li> </ul>
<b>c) Health insurance scheme phased in</b>	<ul style="list-style-type: none"> <li>• Establish compulsory scheme and convince beneficiaries that it is sustainable</li> <li>• Define geographic base of scheme</li> <li>• Define family members to be covered in contributory schemes</li> </ul>	
<b>d) Health safety net for the poor and vulnerable</b>	<ul style="list-style-type: none"> <li>• Decide whether to include all urban residents in basic insurance</li> <li>• Define criteria for eligibility for government support</li> <li>• Growth of charitable foundations</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen programmes to meet needs of vulnerable groups</li> <li>• Make low cost services more available</li> </ul>
<b>e) Reduce urban-rural imbalances in public health</b>	<ul style="list-style-type: none"> <li>• Ensure adequate funding of urban local government health services</li> <li>• Fund basic rural public health</li> <li>• Begin discussions about insurance for migrants and rural workers</li> </ul>	<ul style="list-style-type: none"> <li>• Expanded public health system and preventive programmes in cities</li> <li>• Low cost services for migrants</li> <li>• Strengthened rural public health services</li> </ul>

*a) Effective public health programmes*

City governments have to ensure that their public health and preventive programmes are appropriate to a changing situation. City Health Departments may need to reduce their emphasis on maternal and child health and infectious disease, whilst giving more attention to the needs of the elderly, migrants and poor and vulnerable groups and also to AIDS prevention. They also need to monitor for emergent problems with health and health-related behaviour of vulnerable groups. Local governments will have to allocate sufficient funds to meet these needs.

*b) Access to effective and affordable health services for the elderly*

Many experimental health insurance schemes have experienced financial problems associated with the high cost of benefits for the elderly. Some have collapsed and others have remained solvent by raiding individual savings account. They all face rising costs as more beneficiaries reach 75 years of age.

It is difficult to convince young and healthy people to make substantial contributions to a scheme from which the major beneficiaries are the elderly, unless they are confident that they will eventually benefit, themselves. It is difficult to create this kind of confidence in a period of rapid change. Local governments may need to supplement insurance contributions with funding from tax revenue, borrowing and the transfer of assets (in cash or shares) to a health insurance fund.

International experience suggests that referral hospitals do not provide the most cost-effective health care for the elderly. The hospital insurance schemes encourage people to seek care from these facilities. A major effort is needed to identify an appropriate mix of community support, basic preventive and curative services, and care in hospitals and nursing homes. The government could encourage some cities to experiment with an integrated benefit for the elderly, rather than the present insurance provisions. The benefit would be financed in the same way as existing schemes. Employers would be able to purchase supplementary benefits for their retirees. The benefit fund would use alternative forms of payment for services, such as capitation payments adjusted for age, or contracting with specified facilities to provide services on demand. The purpose would be to test alternative approaches for addressing the needs of the elderly.

*c) Health insurance phased in*

The government has enunciated principles for health insurance reform, which combine a basic benefit for urban residents, contributory insurance and a voluntary private top up (State Council 1998 & 2000). Questions remain about the breadth of coverage and sources of finance. Present proposals suggest that all urban residents should be entitled to a basic benefit. Government will have to subsidise membership by low-income earners. Or, other beneficiaries will have to contribute an extra amount. There is a trade off between the size of the basic benefit package and the feasibility of extending coverage to all. The proposals are not clear about the degree to which contributory insurance schemes should cover family members. This is important, if significant numbers of working age people will not be employed.

There are questions about the geographic basis for pooling. A scheme that covers all cities in a province would put a heavy strain on poorer localities unless there were fiscal transfers between cities. This would reduce inequalities between cities, but might increase rural-urban segmentation. The larger the commitments of city governments to finance benefits for urban dwellers, the greater the likelihood they will resist fiscal transfers to poor rural localities. This kind of trade-off becomes particularly important as coverage is extended to workers in rural-based enterprises and to rural-urban migrants. There are also questions about the kinds of health services to which the insured population should be entitled. This involves the balance between ambulatory care, hospitals, prevention and community support. It also involves choices of cost-effective interventions.

The most important challenge is to convince young people that they will eventually benefit from newly established schemes. One reason for the introduction of individual accounts was that they provided assurance to account holders that they had a firm claim on these resources. The fact that insurance schemes have had to draw down the balances in these accounts means that they have to find an alternative strategy to win the trust of potential contributors.

*d) Health safety net for the poor and vulnerable*

There are only minimal arrangements to finance health care for the urban poor. Municipal Health Departments need to take the problems associated with poverty into account in planning their preventive programmes. They also need to devise strategies to make effective basic services available at an affordable cost where people live.

Local departments of civil affairs finance little more than *ad hoc* arrangements to write off bad debts of hospitals. There is a growing recognition that poor health and the high cost of medical care is an important factor leading to household impoverishment. This suggests the need for some form of safety net, which would involve co-operation between local departments of health and civil affairs. The design of a targeted health benefit will not be easy. Government will have to address issues such as the identification of beneficiaries, the definition of a package of appropriate health services and the design of payment mechanisms that encourage facilities to provide services of a reasonable quality and price. In establishing this kind of benefit policy-makers should be aware of the ultimate aim of providing universal coverage to urban residents. Nonetheless, measures will be needed to protect the poor and vulnerable during the period of transition.

The government has begun to encourage the establishment of charitable foundations to address the needs of the indigent. This development raises difficult questions about the relative responsibility of government and private charities in raising money from profitable enterprise and people with substantial incomes and in supporting those in need.

*e) Urban-rural imbalances in public health reduced*

The health of urban and rural populations is inter-linked. The reduction of structural barriers in the labour market will make it increasingly difficult to maintain large differences in entitlement to health insurance between urban and peri-urban residents. The high burden on urban enterprises of health insurance gives an advantage to those outside the city boundary. New enterprises may take this into account in deciding where to locate themselves. This could ultimately erode urban social benefits. The many rural-urban migrants also push the social wage down. These pressures can be addressed by keeping the cost of urban health insurance down and by extending coverage to rural-based workers over time.

There is a constant threat that infectious diseases will spread to the cities. One way to address this problem is by ensuring that local public health services keep up with urbanisation. Another approach is to improve rural public health. This is one reason for cities to agree to an increase in fiscal transfers to poor rural areas. Also migrant workers and their employers could be required to contribute to a health insurance fund. The contributions would accrue to individual medical accounts and/or be transferred to a health fund in the migrants' registered places of residence.

*f) The need for regional plans*

Regional health plans presently focus on rationalisation of infrastructure and human resources. The next step in the development of this approach to decision-making would be to base plans on an analysis of the health needs of various social groups and of the present arrangements for meeting them. This would necessitate an integrated approach to issues of health finance and

supply-side reform. All relevant departments (health, labour and social security, civil affairs and so forth) would have to collaborate in formulating these plans.

## **6. CONCLUSIONS**

This period of rapid change has created a need for health reform and an opportunity for achieving it. It should be possible to win support for quite new arrangements amongst young workers. But, the entitlements of older workers will have to be re-negotiated. The outcome will reflect the influence of different stakeholders.

Policy-makers face the challenge of establishing a health insurance system appropriate to the emerging patterns of labour market segmentation. They need to avoid a race to the bottom in which the social benefits in rural areas become the norm for cities. This will ultimately require the establishment of compulsory basic health insurance schemes that can be extended to all employees. Measures are needed to protect governments of poor localities from an excessive burden in financing this benefit. Health insurance reforms will have to be linked to system-wide changes to government financial management.

Discussions about future insurance arrangements have been dominated by negotiations about how to finance existing medical benefits. Once explicit agreements are reached on this issue, it may become easier to agree on longer-term reforms of urban health finance.

International experience suggests that it is very difficult to change expectations of entitlement to care, once they have been created by a health insurance scheme. An inappropriate scheme can preserve unequal access to benefits and become an impediment to labour market development (Mackintosh 1997). The outcome of the present efforts to negotiate new rules of entitlement to urban health services will influence China's health system for a long time.

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# **Policy recommendations regarding hospital efficiency: the trade-off between regulation and competition**

**C. Rehnberg & Q. Meng**

## **Introduction and major findings**

The rapid economic growth in China in the past two decades has had a major impact on health care spending. Total health expenditures was estimated to 2.6% of GDP in 1985 and accounted for 4.8% in 1999. This development is in accordance with international experience, i.e. that the health care expenditures grow at a faster rate than the overall economy. It is important to note that the driving forces for spending is that nations spend more money on health care because they have the money to spend, not because they have greater needs. Given the forecast of economic growth in China a further expansion of the health care sector can be expected. Still, China as the world's largest country, with 1.2 billion people (or around 20 % of world population), accounts for less than 1 percent of global health spending (Getzen 1997).

The increase of the economic level and in the standard of living also brings about demand for advanced services supplied by institutions like hospitals and specialized clinics. Today around 85% of total health expenditure is consumed in hospitals. At the same time the impact from the government has diminished as a result of a decentralized process and more independent providers, but also due to a change in the financing system of hospitals. The distribution between different sources of revenues shows a decline in the government share. Today 18% of overall expenditures comes from government revenues, 30% from enterprise contributions, and 52% from out-of-pocket payments.

In order to control the rapid rise of medical costs, the governments at different levels have designed a number of policy tools over time. Among them, changing provider payment system, reforming pricing policy, and reducing consumption of drugs are the key strategies. Given the continuous changes going in the health care sector regarding cost escalation and technological innovations it is important that all these measures are revised in accordance to these changes. Some regulations and payment system in place might be inappropriate due to new technologies and different cost structure.

The most important and interesting observations and experiences from the two cities study concerning hospital efficiency was:

- the expansion of hospitals in size, staff and investment in hi-tech equipment
- a declining productivity
- low capacity and bed utilization
- the large share of revenues coming from sales of drugs
- the distortion of price regulation and

- the discrepancy between regulated prices and costs
- the incentives given by hospital bonus systems to generate revenues more than saving costs
- some positive impact of the new urban insurance reform on efficiency

Along with the decrease in shares of government budgets in total hospital revenues, price regulation has been used in order to control hospital expenditures. It could be concluded that the reimbursement reform has driven public hospitals to rely on market based revenues. After the governments changed the reimbursement mechanism for hospitals, a series of actions, including introduction of bonus systems, responsibility system, and price distortion regulation, were taken by the hospitals. Changes in bonus methods were also serving the purpose of increasing hospital revenues through rewarding the departments that had reached or exceeded revenues goals.

The new urban insurance system shows some promising developments. The establishment of a specific department of health insurance administration representing all the insured has made it possible to negotiate with, monitor, and control hospitals. Second, the pooled insurance scheme increased the negotiation power of the insurers. Third, changes in payment system might reduce the extent of price distortion of hospital services. Lastly, because the insurance scheme only covered basic health services, it might encourage hospitals not to purchase expensive high technologies and use expensive drugs.

### **Policy recommendations in light of project findings and international experiences**

In this section a number of policy recommendations are presented along with some comments based on relevant international experiences. The recommendations are made with respect to the existent institutional settings. Most of these recommendations are complementary to each other whereas others emphasize the need to make a choice between optional ways of relying on planning or market mechanisms. The recommendations are discussed under three headings: the planning and structuring of health care provision, the financing system for hospitals and the relationship between insurers and hospitals.

#### **The planning and structuring of health care providers**

Different types of imperfections, which justify the introduction of regulatory frameworks, characterize most modern markets. The health care sector is one of the most complex ones and with a long history of regulations. The balance between decentralized markets and planning for hospitals is an international phenomena. In this section a number of arguments are presented that support the needs for some planning interventions.

#### *Implementation of Regional health resource planning.*

The regional health authorities in China do still have an impact through the planning mechanisms. As the ownership of most hospitals lies within the public sector and the local health authorities decide about structure and regulations in the sector, there are still possibilities to use the planning instruments.

International experience of hospital systems based on market relationships and decentralized decision-making show that the overall structuring of the sector often remains as a task for public health authorities. Duplication of services and reduction of the number of hospitals are issues where the planning interventions have to be carried out in the market. A problem observed in the

city studies is that many activities defined in the planning process were not really implemented. For example, workforce in hospitals was not reduced and duplicated health facilities were not combined or closed. For further pushing this work forward, local governments could coordinate relevant agencies including Departments of Planning, Health, and Finance to put the regional health plan into practice. For improving efficiency of service provision, the local governments could use their power as owners to close down or integrate facilities with low efficiency. In municipal cities, high technology and specialties could be concentrated to one or two hospitals to rationalize distribution of health resources. Another issue concerns the role for the Chinese traditional hospitals where one option is to limit their service patterns towards providing health care to the elderly and patients demanding Chinese traditional medicine.

#### *Integration and strengthening the Community health care system*

The Chinese hospital system functions without a clear integration with providers outside the hospital sector. Like many other health systems with a dominance of hospital providers there is over-utilization of hospital services where some parts could be handled by primary health care or community care. International experience show that the development of community health care system is one of the most effective ways to use health resources and serve the community people. Local governments could support development of community health care through a number of measures:

- 1) directly funding community health units for their operations;
- 2) redistributing health resources including health workers and medical equipment from high-level health facilities to primary health care units;
- 3) training of community health workers to improve service quality;
- 4) develop a pricing policy and health insurance arrangement, so that prices of community health care could be set at lower level and co-payment and deductibles in health insurance scheme could be reduced for the insured to attract more health users
- 5) establishment of a formal referral system

By doing this, the community health care could be effectively utilized and most of the minor health problems could be addressed with low cost treatments. The government could take the leading role in establishing the referral system, because of the need for administration and coordination activities.

#### **The Financing System for Hospitals**

The development shows that government funding of hospitals has decreased as a share of their revenues in China. The deregulation and movement towards more autonomous providers have driven hospitals to look for other sources of revenues than government payment. The overall economic growth and sales of drugs have given large opportunities for increasing revenues and expanding hospital services. At the same time this development raises the question which role should government have in financing hospital services.

#### *What should the government pay for?*

The international literature on health care financing gives some answer about what type of health services that can't be financed by other sources than taxes. Traditionally goods and services characterized as collective goods such as medical research, catastrophic medical care, health promotion and control of disease vectors are difficult to finance by other sources. Another type

of government intervention concerns services due to externalities such as vaccination against contagious diseases. A third argument is the access to health service for vulnerable and those who cannot pay for health care directly or indirectly through insurance.

As indicated in the presentation of the findings it seems impossible for a major role for governments in the financing of hospitals. Still, it is important for the government to have a strategy for their contributions. The present method of allocating public funding through indicators of number of beds and staff is questionable both from an efficiency and equity perspective. It encourages expansion of inputs that could cause overall inefficiency and waste of resources. The strategy options the governments are confronted with are to focus on efficiency or access to hospital service. The efficiency option means that the issues of cost-effectiveness should be the target for government financing. The application of traditional government tasks to health services, mentioned above, could be one option for financing hospitals. Restricting and making government funding conditional to proof of cost-effective treatments and investments in equipment is another option. However, experience shows that partial financing as a mean to control cost and improve efficiency is not very successful. Examples from other countries where governments have financed capital costs and the hospitals than sought other sources for operating costs shows that there are several ways for hospitals to circumvent such policies.

The other option would be to use government sources for improving access to health services for vulnerable groups. One option could be to support certain types and/or levels of hospitals that these groups utilize. Besides, the governments could also consider subsidizing users instead of providers. For example, the government could shift the budgets from hospitals to urban health insurance fund. This amount of fund could specifically be used to the poor and other types of vulnerable population, for instance, the unemployed and laid-off workers, to cover their premiums, co-payment, and deductibles. Irrespective what mechanisms the government would use, the important message is to define a new clear strategy for government financing, which most likely will contribute to a smaller part of overall hospital financing.

### *Price-regulation*

The experience of price-regulation in health care is not very promising in an international context. There are numerous of examples how price-regulations have failed and side effects have occurred. The targets of regulations such as hospitals or the pharmaceutical industry show a very creative capacity when it comes to circumvent regulations. In China the experience is an inadequate regulation of prices, which has not been adjusted to the cost escalation and the supply of new services. One strategy by hospitals has been to develop new products where the price regulation is not applicable. Hence, if price regulation should play a role in the control of costs and promote efficiency, there is a need for revising the pricing policy and the way it is carried out.

The new pricing policy issued by the central government in middle 2000 gives local governments more autonomy in setting and adjusting prices of medical services. Local departments of Price Administration and Health could use this new pricing policy to correct problems in hospital price structure. The focus of adjusting prices could be on hi-tech equipment services and drugs. Prices of hi-tech equipment services should be really reduced to discourage hospitals to purchase and over use of hi-tech equipment. In the meantime, markups of drugs for hospitals should be reduced to disconnect links between hospital revenues and drug selling. However, it should be

noted that price regulations is not an easy task and that all such regulations must be adapted to technological changes in hospital services. It is also important that the regulation not only focus on specified items, but consider all items used during an illness episode at a hospital admission.

#### *Revenues from pharmaceuticals*

The sale and distribution of pharmaceuticals is regulated in most countries. There generally no direct exchange of drugs between manufactures and consumers. Due to a large gap in knowledge ('asymmetric information') different regulations are in place to protect consumers. In many countries there is a discussion of how the distribution chain should be organized. The role of the providers as hospitals and physicians is crucial. First, providers have a decisive influence on prescription and the choice of drugs. A central question is if providers, given this influence, also should be allowed to sell drugs. Even if the have the right to dispose and sell drugs there are regulations about the incentives for the sale of drugs. In China the drug revenues has become important for the hospitals' financing and there is at present small incentives to control costs of drugs.

Given the vulnerability of patients and the effect of supplier-induced demand it is improper that hospitals have the incentive to promote drug consumption. In order to reduce revenues from drugs the Municipal governments could coordinate the work of three departments, Departments of Health, Drug Administration, and Price Administration, in controlling health expenditures on drugs. The measures could include to

- 1) design essential drug list for use in drug prescription;
- 2) split benefit links between drug prescription and hospital revenues to make the hospitals independent from sales of drug and revenue generation;
- 3) adjust and regulate markup rates in hospitals.
- 4) set prices of drugs according to their costs.

#### **The relationship between insurers and hospital providers**

An important feature of recent health care reforms in China is the restructuring and development of new insurance schemes. The hospital revenues from insurance schemes are becoming more important and will probably be even more important in the future. Hence, the function of these insurance schemes will have a large impact on and also set the constraints on hospitals behavior. Hence, the efficiency of the hospitals will be a function of how the relationship between the new insurance arrangements and hospitals is arranged. International experiences show the importance of competent and active insurers in order to control costs, achieve a highly qualitative and efficient service. As insured consumers are released from economic consideration at the time for the consumption of health services, issues as cost consciousness and cost-effectiveness rests on the insurers. This function could be handled in different ways and by the use of a set of tools.

#### *Improving urban health insurance reform*

The introduction of the new urban health insurance schemes shows some positive impact on hospital efficiency. The trend with a declining efficiency is discontinued and the insurers are judge to play a more active role in negotiations with hospitals. International experiences show that it is necessary to provide insurers with tools and instruments to become an efficient purchaser of health services. The insurers must be allowed to act on behalf of the premium payers, i.e. the employers and the employees, to receive the highest value for the payments. In countries where

insurers (or third party payers) have been given a more active role as purchasers of health services, there are examples of slower increases in expenditures and higher productivity rates.

#### *Payment and Contracts*

The city study shows that the use of the fee-for-service (FFS) payments gives hospitals almost no incentives for efficiency. This observation is in accordance with international experiences and where FFS payment is replaced by payment per episode or capitation payment. For improving efficiency of hospital service provision, it is necessary to try alternative payment systems such as payments based on Diagnosis Related Groups (DRGs) or similar methods. The important issue is not to copy any special payment system but to develop and designing appropriate payment mechanisms, which give the hospital incentives to act according to the insurers (and the patients) preferences.

#### *Competition in the hospital sector*

A more active performance of the insurance schemes opens up the opportunities for an effective competition between hospitals. As hospitals have been guaranteed revenues for their expenses, which seldom has been questioned, there has been very little of competition. In such situations China has the same experience as in many other countries. When there is a free choice of hospitals among patients and hospitals don't have to be concerned about costs, different sorts of *non-price competition* is likely to occur. The experience is that it is difficult to change this behavior into some type of price competition. Still, if the insurer or the purchaser buys a substantial share of the hospitals production it has a better bargaining power in the negotiations. In countries with public procurement there are examples of efficient tendering.

However, given that the new urban insurance schemes act on behalf of several insured groups they might achieve a bargaining power that could be used in negotiations with hospitals. Competition mechanism could be introduced in selecting contract hospitals. First, criteria for selecting hospitals providing medical care to the insured could be developed. Major components of the criteria could include indicators of quality, cost, and efficiency performance. Second, an evaluation panel should be set up to assess performance of hospitals. This panel should work regularly at municipal level and submit reports to the fund management agency. Whether or not a hospital is contracted should depend on relative performance of hospitals. Third, appropriate incentive mechanism should be designed for contract hospitals. Hospitals having better efficiency performance could be rewarded with the savings of costs and hospitals with lower efficiency could be unlisted from the contract or be financially punished.

The general conclusion concerning competition in the hospital sector is that it is not easy to achieve. The lack of cost containment and effective service that is presented in the literature is not explained by inherent characteristics of hospitals, but more depending on the competitive environment. The major actors in such competitive environment are the insurance schemes and their behavior is crucial for an effective competition.

#### *Internal Management and information system within insurance schemes and hospitals*

In addition to developing the conditions for negotiations and contractual arrangements between insurers and providers it is also necessary to develop internal management capacity on both sides. The insurers must keep records in order to compare different providers and also to follow

trends over the years. Some of this information could be part of a contract where it is specified what information providers should collect to the insurers. Overall it is important to improve the information per patient group (or diagnosis) so that information about cost, effects, quantity of services and quality indicators could be analyzed simultaneously.



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**ADDRESSING INEQUITY IN ACCESS TO HEALTH CARE  
IN URBAN CHINA: A REVIEW OF HEALTH CARE FINANCING AND SERVICE  
PURCHASING EXPERIMENTS**

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**ADDRESSING INEQUITY IN ACCESS TO HEALTH CARE  
IN URBAN CHINA: A REVIEW OF HEALTH CARE FINANCING AND SERVICE PURCHASING  
EXPERIMENTS**

1. Introduction

Since economic reform was launched in the late 1970s, China has had an impressive and sustained economic growth. The average income of Chinese people in 1997 was 14 times that of 1979, a 212 per cent increase in real terms, according to the State Statistics Bureau (SSB) of China (SSB 1998). The GDP per capita rose from 1,622 yuan in 1990 to 6,024 yuan in 1997 (Table 1). The living standards of the majority of the Chinese population have increased significantly over the past two decades. More than 100 million people have moved on to above \$1/day, and another 130 millions to \$2/day. However, the social agenda in China remains unfinished. Inequity in health and health care, among others, is still a major concern. Some health indicators, such as the under-five mortality rate, have been stagnant since the mid-1980s (World Bank 1966). Because of the collapse of rural cooperative medical schemes in most rural areas (Tang et al. 1994) and the dismantlement of the Government Insurance Scheme (GIS) and the Labour Insurance Scheme (LIS) in the urban areas (Gu and Tang 1995) inequity in health and health care between the urban and rural areas has widened (Liu et al 1999). Within both the urban and rural areas, there is also increased inequity in financing of and access to health care between the rich and the poor. Inevitably, the ratio of public to private source in health care financing declined from 170% in 1990 to 76% in 1997 (Table 1).

**Table 1. Selected socio-economic and health indicators in China (1990-97)**

	1990	1995	1997
GDP per capita (RMB)	1,622.27	4,828.07	6,024.00
Health expenditure per capita	75.28	197.77	277.90
Health expenditure as % of GDP	4.6	4.1	4.6
Ratio of public to private source in health care finance %	170	99	76

Source of data: China Statistical Yearbook 200 and Liu, et al (2001)

The GIS and LIS covered fully or partially about half of China's urban population until the early 1990s. The recent national health service survey showed that the coverage of health insurance declined significantly from 54% of the urban population in 1993 to 39% in 1998 (Gao and Tang 2000). Table 2 shows the percentage change of health insurance coverage among the urban Chinese population between 1993 and 1998. Not surprisingly, there has been an increase in the proportion of the population who are not covered by any health insurance and have to pay out-of-pocket for health services in circumstances in which the cost of medical care has risen rapidly. There are several factors affecting the change of health insurance coverage in urban China. First is the continuous urbanisation over the past two decades. In 1978, only 20% of the Chinese population (191 million) were regarded as urban residents. The recent national census survey conducted in 2000 shows about 36.1% of the population living in urban areas (State Statistical Bureau 2001). Many rural counties, where the percentage of the population covered by the The GIS and LIS was low, have been upgraded to urban cities. Second, more adults in the urban areas were unemployed in 1998 than in 1993<sup>3</sup>. A vast majority of these people lost work-related benefits including health insurance when they lost jobs or were laid-off. Third, many enterprises and local governments have had financial difficulties in paying for medical care for their employees, undermining financial viability of both the GIS and LIS. Fourth, a significant number of rural emigrants are now living and working in the economically developed urban areas, although there are no official figures reported.

Table 2. Percentage change in health insurance coverage of urban Chinese population (1993 and 1998)

	<b>GIS/LIS</b>	<b>Commercial Insurance</b>	<b>No insurance</b>	<b>Others</b>
1993	53.5%	0.3%	27.3%	19.0%
1998	38.9%	3.3%	44.1%	17.4%

Sources of data: the national health service surveys conducted in 1993 and 1998 by the Centre for Health Statistics and Information, Ministry of Health, Beijing.

Reforming the urban health insurance system has been increasingly pressing, as the problem of access to health care, particularly among the urban population has been worsening in recent years. Since the late 1980s, the central and some local governments in China have been supporting a number of experiments with various insurance schemes in many urban cities to increase efficiency and coverage. While numerous studies and reports, particularly published internationally, focused on rural health care in the 1980s and early 1990s, the attention has now turned to urban settings, especially because of the Chinese government's heightened interest in urban social security and health care systems. Nevertheless, there is still a lack of consolidated evidence on how these reformed health insurance schemes and purchasing arrangements have affected the access of the urban population, particularly the urban poor, to health care.

<sup>3</sup> Gao and his associates reported in their paper that about 13% of the urban population sampled in the national health service survey in 1998, excluding the pupils and the students attending schools, had no jobs and 8% of them had been laid off. However, in 1993 only 11% of the urban population did not have jobs or were laid off (Gao et al 2001). A report published by UNDP (1999) estimated that the rate of unemployment in 1998 was 7.9-8.3%. The official unemployment rate published by the State Statistical Bureau and the Ministry of Labour and Social Security was 3.1% at the end of year 2000.

The study presented in this technical report is an integral part of a broader study on health financing for the poor in East Asia and Pacific. The broader study, which is funded jointly by the World Bank and the Asian Development Bank, is looking into various insurance and payment mechanisms that are put in place or being tested in a number of countries in the region, and trying to evaluate their impact on the poor in terms of access to, utilisation and quality of care. The main objective of this study was to review the experiments of reforming urban health insurance schemes in China over the past decade or so and assess their impact on equity in financing of and access to health care and efficiency in service provision. The study tried to address the following questions.

- Which reform of the urban health insurance schemes and benefit arrangements jeopardise or enhance access to health care, why and how? Is there any negative impact of these new schemes particularly with reference to their arrangements for access of the poor to basic health care?
- How do these schemes and provider payment methods used affect efficiency of a selected set of individual medical care services?
- What are the policy issues for improved equity, effectiveness and efficiency in urban China? What are the key socio-political and economic advantages and constraints in China, which affect social protection in general, and health care coverage in particular? Do they vary across various provinces and large municipalities, and if so, in what ways?

The main methods used in the study were to review the government policy documents, the regulations on various health insurance schemes issued by various municipal governments, relevant reports and literature published or unpublished, as well as other pertinent information available in China. Researchers in China also conducted a limited number of in-depth interviews with health policy-makers, leading Chinese academics, and government officials responsible for the reform of health insurance schemes. The report was written based on the analysis and synthesis of all the information collected.

The structure of the report is as follows: Section One: Introduction; Section Two looks at the experiences of reforming urban health insurance schemes in selected cities in China over the past decade and their impact on equity in financing of and access to health care, as well as cost containment in service provision. Section Three describes the evolution of service purchasing and provider payments along with the reform of urban health insurance schemes. It examines the impact of these purchasing arrangements and provider payment methods on efficiency and appropriateness in service provision. Section Four presents new health policies for urban health care and their implications for equity and efficiency in health care, as well as challenges and opportunities in developing a more equitable health care system in urban China

## **2. Urban health insurance reform**

This section first looks at the main problems in the GIS and LIS which were driving the reform of urban health insurance in China. It then reviews key results emanating from the health

insurance experiments conducted in different times over the past decade or so. Finally, the section discusses the impact of the health insurance reform on equity in financing of and access to health care with special reference to the urban poor.

## **2.1 Main problems and issues in urban health insurance schemes prior to the reform**

After the founding of the People's Republic in 1949, the Chinese government set up two work-related health insurance schemes in the urban areas: the Government Insurance Scheme (GIS) and the Labour Insurance Scheme (LIS).

The GIS originated in the old liberalisation zone controlled by the Communist Party of China in the mid-1930s. It was officially established after the State Council issued a document entitled "Implementation Method of GIS for State Employees" in August 1952. Its beneficiaries included civil servants, university students, and retired veterans. The dependents of these beneficiaries have never been covered by GIS, although some places allowed individual institutions to use the budget for employee benefits to subsidise the costs of medical care for the direct dependents. Some regulations that guided the implementation of the GIS were modified by the State Council in 1964 and 1979. The source of finance for the GIS came from the finance department of central or local governments, as part of the annual government budget. A fixed amount of money per person was allocated by the finance department to the GIS management office which was often physically located in the Health Bureau/Department of local governments and which managed the fund. Since the late 1970s many institutions were unable to pay for the costs of medical care for their employees, using the GIS fund allocated (Gu and Tang 1995). Therefore, it was not uncommon to see these institutions using their own revenues to supplement the costs of medical care for their employees.

The LIS was formally established in 1951 when the State Council of the Chinese government issued "The Regulations for Labour Insurance of People's Republic of China". Its beneficiaries included the employees working at the state-owned enterprises and their direct dependents. It covered fully the cost of medical care for the employees and partially for their dependents. The government required that collective-owned enterprises should implement the same policies related to LIS as the state-owned enterprises. LIS also covered medical care and other services, such as maternal leave benefits. The funding for LIS came from the benefit/welfare budget of each enterprise. On average, the expenditure of LIS accounted for 11-14% of the gross wage/salary costs to the enterprises before early 1990s. The regulations and policies of LIS were modified by the then Ministry of Labour and the National Workers' Union, on behalf of the State Council, in April 1966, to tackle the problems that had arisen. There has been no published scientific research to examine whether or not the LIS was effectively implemented before economic reform. However, there were reports in the 1960s, indicating that there was a lot of waste and unnecessary use of limited resources in the operation of LIS, as well as GIS (Teng 1995). The central government was prepared to tackle these problems in 1965. Unfortunately, the Great Cultural Revolution starting in 1966 and lasted the following ten years, ruling out any possibility of reforming the two health insurance schemes.

There have been numerous studies and papers discussing the problems that existed in the GIS and LIS over the past decade (Hsiao 1995, Gu and Tang 1995, Liu et al 1995, World Bank

1996). The main problem was the rapid rise of medical care costs during the 1980s and early 1990s, owing largely to lack of cost control mechanisms, among other factors. The employees covered by the two schemes were required to pay almost nothing for any medical care services they received. Some services were very expensive and beyond the affordability of the government and enterprises. No measures were taken by the two schemes to enable service providers to use limited health resources more efficiently. Rather, the service providers benefitted significantly in financial terms from the fee-for-service payment methods used. While there was a great deal of waste, resulting from over-use of unnecessary service, many of the urban population, particularly those working in loss-making enterprises or not covered by any health insurance, did not have access to basic health care. Besides these problems, there were also others that affected the implementation of the GIS and LIS . The magnitude and capacities of risk-pooling were very limited, because the GIS and LIS funds were not shared among the institutions or enterprises. It was often seen that one or two employees who suffered from catastrophic diseases and needed to seek expensive care could use up a large chunk of the fund budgeted for LIS in a small enterprise, for example. These loss-making enterprises or those institutions with a long history and a high proportion of retirees or ageing employees had difficulties in paying for all health care services for the people they were taking care of. In addition, an increased number of private firms/enterprises, joint-venture, and foreign manufacturers might not be able to provide adequate health insurance to their employees. Therefore, there had been many problems in the operation of The GIS and LIS , particularly in terms of financial sustainability, labour market impact and production efficiency (World Bank 1996). These problems have affected not only the welfare of many individuals, but also healthy development of many small, middle and large enterprises, as well as the national economy in China.

## **2.2 Experiences with reforming the GIS and LIS**

The GIS and LIS reforms, which began in the early 1980s, expanded over three distinct phases:

- Phase One from early 1980s to 1988;
- Phase Two from 1988 to 1997; and
- Phase Three from 1998 to present.

Phase One: Reforming the GIS and LIS in Phase One can be regarded as local initiatives. Several local municipal governments or enterprises developed various initiatives, trying to tackle the problem of the rapid increase of medical care costs, and increase risk-pooling capacity and scope of the GIS and LIS. These initiatives included the following features:

- Introduction of co-payment mechanisms - People covered by the two health insurance schemes were required to pay a fixed percentage, say, 10-20%, of medical care expenditure out of pocket. This was mainly aimed at controlling demand for health care and minimising unnecessary use of the services.
- Establishment of catastrophic disease insurance arrangement - Some industrial sectors (e.g. mining and railway) in some cities set up catastrophic disease insurance scheme for their employees and retirees in order to increase risk-pooling capacity and magnitude. This initiative was mainly developed in the LIS.

- The use of capitation in the management of the GIS – Some municipal governments tried to give designated hospitals the GIS fund as annual capitation payments. These hospitals were asked to provide defined services to the beneficiaries. Usually, these hospitals had to share some financial risks if they overspent the fund allocated to them. In the meantime, they were allowed to keep a portion for hospital development, if they managed some cost-saving.

Phase Two: Phase Two began in 1988 when the central government decided to set up a leading group for reforming urban employee health insurance schemes. This group was headed by the Ministry of Health, but it also involved nine ministries including the ministries of finance, personnel, labour, and others. A draft document entitled ‘Considerations on the Reform of the Employee Health Insurance System’ was issued in July 1988, setting out the direction for reforming the GIS and LIS. This showed that the central government wanted to play a leading role in this aspect. Soon after this, experimental reform of the GIS and LIS commenced in the four cities of Dandong, Siping, Huangshi, and Zhuzhou was announced, and began in early 1989. The main purpose of these experiments was to establish a city-level social insurance system with the introduction of some cost control mechanisms. Unfortunately, the system in the four cities was not developed as expected, owing to the lack of interest of local governments and the fiscal difficulty facing these cities. No municipal governments, except Dandong, completed the design of the health insurance scheme. For various reasons, Dandong was finally unable to implement its plan<sup>4</sup>. Two or three years later, Hainan Provincial Government and Shenzhen Municipal Government tried to reform the GIS and LIS under the auspice of the central government. In 1992, the leading group for reforming the GIS and LIS was upgraded. It was directed by one State Councillor and under the direct leadership of the State Council. Its main in Phase Two was to first guide the reform of the GIS and LIS in the two demonstration cities – Zhengjiang and Jiujiang and later in 57 cities in China. Below are brief descriptions of various experiments on health insurance conducted during Phase Two.

### **Hainan Experiment**

Hainan Province is a newly established province and was part of Guangdong Province. In 1991, the Hainan Provincial Government issued “Temporary Regulations for Employee Medical Insurance Scheme in Hainan Province”. The new scheme tried to cover most employees in urban areas, excluding military servicemen, and foreigners working in the province. The fund for the new scheme came from employers paying 10% of their employees’ gross salary/wage, and employees paying 1% of their salary/wage. The self-employed should pay 11% of their monthly income every month. The premium for those retirees should be paid for out of the pension fund. The fund was divided into two parts – social co-ordinating fund (the term social pooling fund was also used in some cities) and the individual account (the term medical saving account was also used in some cities). See Box 1.

The fund in the individual account was used to pay for outpatient services. Each individual should use his/her own account to pay for the services. The social co-ordinating fund was to cover up to 95% the costs of inpatient services for the beneficiaries. The list of services and drugs

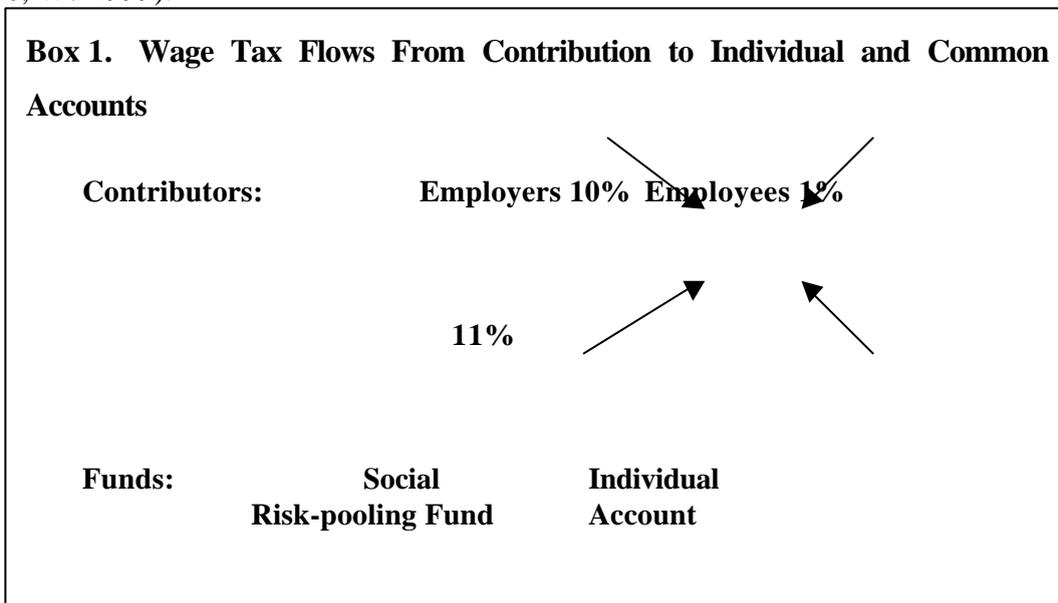
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<sup>4</sup> Personal communication between Shenglan Tang and Renhua Cai of the MoH, China in 1998.

covered by the scheme was developed by the medical insurance management committee. The regulations were revised by the Hainan Provincial Government in 1995 in order to tackle the problems that arose and to improve the design of the health insurance scheme (Wang 1998).

### **Shenzhen Experiment**

Shenzhen is a newly established city with about 3 million residents, of which 2 million are temporary residents (mainly rural migrants) who tend to be young contract workers. At the end of the 1980s Shenzhen was identified by the State Council as one of the experimental regions for comprehensive social security system reform. In May 1992 the Shenzhen Municipal Government issued “Temporary Regulations for Social Security in Shenzhen”. After a four-year implementation period, some problems, such as difficulties in controlling hospital costs and low participation by some young and profit-making enterprises, arose, which gave rise to difficulties in ensuring access of the beneficiaries to basic health care<sup>5</sup>. In order to solve these problems, the municipal government revised the old regulations and issued “Temporary Regulations for Basic Health Care Insurance in Shenzhen” in 1996. The scheme has three packages for different people. Package One is the so-called “Comprehensive health insurance” covering outpatient and inpatient services for employees and retirees with permanent resident status in Shenzhen. Package Two is “Hospital insurance”. It only covers hospital care services for non-permanent residents who have temporary contracts and those permanent residents who are claiming unemployment benefits. Package Three is “Special health insurance” which was specially set up for retired senior government officials, the veterans and former military servicemen who are disabled. The three packages tried to cover all the employees and retirees affiliated with the enterprises, government agencies, public institutions and other organisations in Shenzhen (Ou 2000, Wu 1999).



The sources of finance for Package One, Comprehensive Health Insurance, are similar to those described in Box 1. Employers were required to pay 7% of employees’ gross salary/wage and employees needed to pay 2% of their salary/wage into the fund. As for Package Two, Hospital

<sup>5</sup> For more detailed information, please see the World Bank Report of China: Issues and Options in Health Financing. Pp60-61.

Insurance, the employers were required to pay 2% of the average salary/wage of the city employees for non-permanent resident workers employed, while the municipal government used the social security budget to pay the same amount of money for those claiming unemployment benefits. In terms of funds for Package Three, it was not surprising that the municipal government took full financial responsibility for the costs. A co-payment mechanism was introduced in both Package One and Two. The percentage of co-payment varied from 5% to 35%, subject to the level of health facilities the insured visit and types of services (outpatient and inpatients), as well as age groups of the insured (young or old employees and retirees).

### **Zhengjiang and Jiujiang Experiment**

In 1994 a demonstration health insurance reform experiment began in Zhengjiang City of Jiangsu Province and Jiujiang City of Jiangxi Province under the auspice of the State Council. The two cities, each of which has about 2.5 million inhabitants, set out to develop a new model of urban health insurance for other cities of China. Both cities required all the institutions and enterprises that had the GIS or LIS to be participants of the health insurance experiment.

**Box 2. Three tiers of payment for medical care in the Zhengjiang and Jiujiang Health Insurance Experiment**

The first tier – All the individuals should first use their own personal accounts to pay for medical care. The amount deposited into their personal accounts depended on their wage/salary and age. Approximately 5-7% of their wage/salary was deposited periodically into their personal accounts with some variation by age bracket.

The second tier – Once the insured has used up the fund in his/her personal account, s/he should pay for medical care out of pocket until the out of pocket payment reached 5% of his/her annual income. Then, s/he was entitled to use the social pooling fund to cover the costs of medical care.

The third tier - After paying 5% of their annual wage/salary out of pocket for medical care, these insured people were eligible to use the social pooling fund to pay for medical care. However, the new health insurance schemes in both cities required individuals to co-pay up to 20% of medical care expenditure at this tier.

...ecting insurance premiums from the government agencies, public institutions, and enterprises, and then committing these funds to the individual and social co-ordinating fund accounts by formula similar to the one presented in Box 1. Three tiers of payment for medical care have been developed for the use of both the individual accounts and the social co-ordinating fund (Box 2).

The introduction of personal accounts and co-payment mechanisms was expected to encourage moderation of people's demand for medical care in the two cities. In addition, the new health insurance schemes also developed an essential drug list consisting of about 1,400 Western pharmaceutical productions and about 500 manufactured Chinese medicine. Only the drugs on the list could be reimbursed.

Due to overspending of the social pooling fund in Zhengjiang, the health insurance management committee in 1999 decided to adopt the approach used in the Hainan experiment, that is, the fund from the personal accounts can only be used to pay for outpatient services, and the social pooling fund can mainly be used to pay for inpatient services and special outpatient services (Wang and Wang 1999). Such an approach has implications for equity in financing of and access to health care. These issues will be discussed later.

After a more than one year experiment in the two cities, the State Council wanted to expand the experiment to 57 cities in 1996, using the same principles, but allowing these cities to modify the model used according to their local situations. The information obtained from the State Council indicated that only about 40 cities actually reformed their GIS and LIS. Even among those cities which did initiate the reform, some cities only reformed GIS, not LIS. Poor participation in these schemes owed largely to the inability or unwillingness of some enterprises or their managers to join. As Duckett pointed out, both state-owned and private enterprise managers aim to minimise enterprise spending on employees' medical treatment (Duckett 2001). In addition, weak state capacity has also enabled many enterprises to resist participation in these supposedly compulsory health insurance schemes at the local level. Duckett (2001) identified three main reasons to account for such weak state capacity. First, the system of bureaucratic rank makes it difficult for local governments to force state enterprises to participate if they are ranked at the same or higher level. Second, the institutions responsible for health insurance have a poor ability to audit enterprises, which means that they often do not have adequate information on the economic situation of these enterprises. Third, since there is no legislation requiring enterprise participation, social insurance institutions are unable to use the law to enforce the schemes.

### **Other experiments in China**

While Zhengjiang and Jiujiang were experimenting with the new health insurance schemes under the leadership of the State Council, many other cities in China launched the reform of the GIS and LIS in one way or another. It is neither possible nor practical to introduce all these reforms in this report. However, the experiments worth mentioning are the ones in Shanghai and Beijing. In order to increase the capacity and scope of social-pooling, Shanghai Municipal Government developed the "Hospital Insurance Scheme" in 1996, which was mainly funded by payment from employers (4.5% of their employees' wage/salary). In 1997, the contribution from employers increased from 4.5% to 6.5%. Also in 1995 the Beijing Municipal Government introduced "Serious Diseases Insurance". All enterprises were asked to contribute 6% of average city employee income into the fund for each of their employees and affiliated retirees. Employees were required to pay 1% of their own wage/salary into the fund which was mainly used to cover expenditure on inpatient services<sup>6</sup>.

Phase Three: This phase began with the arrival of a new government led by Premier Zhu Rongji in 1997. The new government was re-structured in tune with the new socio-economic order in China. One significant change related to urban health insurance was that the Ministry of Labour

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<sup>6</sup> Quoted from the document entitled "Regulations on Beijing Basic Health Insurance Scheme" issued by Beijing Municipal Government in 1995

and Social Security (MOLSS) was established, building upon the old Ministry of Labour. MOLSS was mandated by the State Council to take charge of urban health insurance and its reform. The Department of Medical Insurance of the MOLSS was created to oversee the reform of the GIS and LIS.

Having learnt lessons and experiences from the health insurance experiments conducted in many cities over the period of Phase One and Two, the new ministry in 1998 advocated new ideas in reforming the GIS and LIS in the next 3-5 years. They thought that the new health insurance scheme should have 1) low level service/cost coverage, 2) high level population coverage, 3) different levels of health insurance cover from basic health care services to sophisticated and expensive ones, and 4) various types of health insurance. These ideas were incorporated into an official document entitled “Decision of the State Council on Establishing Urban Employee Basic Health Insurance Scheme” issued by the State Council in 1998. According to these principles and guidelines, a multi-layer health insurance system including basic health insurance schemes, supplemental health insurance schemes and other commercial health insurance schemes should be developed. In addition, medical financial assistance aimed at helping the urban poor in seeking basic health care was also to be established. By offering these options of health care financing, the government expected to meet the different needs of and demands for health care of different population groups in urban China.

*Basic health insurance schemes.* The basic health insurance schemes being developed should be less expensive than the experiments conducted before, but they should have higher population coverage. The schemes should carefully consider the affordability of local governments, enterprises and individuals. Therefore, it was suggested that the employers be asked to contribute 6%, instead of 10-11% of employees’ wage/salary for health insurance, while employees should be asked to pay 2% of their wage/salary for health insurance. The low contribution by employers was aimed to enable the vast majority of enterprises to be able to participate in the basic health insurance schemes. In addition, private companies/firms and enterprises, joint ventures and the self-employed were also required to participate in the schemes. In June 1999, the MOLSS, together with the State Development and Planning Committee, the Ministry of Finance, the Ministry of Health, and the State Chinese Medicine Management Bureau, issued a proposal on the management of diagnostic and treatment services for basic health insurance schemes to every province and municipal metropolis. This proposal mainly set out the rules and guidelines regarding what kinds of services should not be covered by basic health insurance scheme and what kinds of services required a co-payment by the insured. Using these rules and guidelines, each province and municipality was to develop the scope and list of health services to be fully or partially covered by the new schemes. An essential drug list was to be developed at the same time (State Council 1998).

The State Council has given each province and municipality autonomy concerning the allocation of collected health insurance funds in personal accounts and social pooling funds, the level of deductible payment, ceiling, and percentage of co-payment, although some suggestions and guidelines were made, e.g. the ceiling could be set around four times the annual income of an average city employee. As a whole, the State Council wanted to see that each province and municipality would be able to develop a basic health insurance scheme appropriate to local socio-economic development.

Since mid 2000 after about one year's preparation, there has been an increased number of provinces and municipalities implementing the new basic health insurance schemes, although many places are still designing the new schemes based on the policies and guidelines issued by the State Council. The new schemes should follow the guidelines proposed in the "Decision of the State Council on Establishing Urban Employees' Basic Health Insurance Scheme", but were allowed to have variations between provinces and municipalities. For example, all basic health insurance schemes should adopt the approach to personal account and social pooling fund. In terms of supplemental health insurance, each province and municipality could develop different schemes to be financed in many different ways. According to the information collected by the authors of the report, some cities have not yet developed any supplemental health insurance schemes, such as Bangbu in Anhui Province and Chengdu in Sichuan Province. Table 3 shows financial contribution by employers and employees to the basic health insurance fund in selected cities in China in 2001-2002.

**Table 3. Financial contribution, as percentage of wage/salary, by employers and employees to the basic health insurance schemes in selected cities in China in 2001-2**

City	% of wage/salary from employers	% of wage/salary from employees
Shanghai	10	2
Fushan	6.5	2
Bangbu	6.5	2
Jiangsu	6	2
Chendu	7.5	2
Chende	8.5	2

Source of data: compiled by the authors.

The allocation of the health insurance fund into the personal accounts and the social pooling fund is not complex. A common rule is that the individual contribution goes to the personal account, while the employer's contribution should be split into the personal account and the social risk-pool fund at a 50:50 ratio, subject to age groups. However, the use of the fund in personal accounts and the social pooling fund has been more complicated recently than it had been (Table 4). Each municipal government which has established a basic health insurance scheme has developed lengthy regulations on the use of the personal accounts and social pooling fund.

**Table 4. Policies and regulations on the use of funds**

	Personal account fund	Social pooling fund
Outpatient and emergency services	Eligible for the use of the fund	Eligible for the use of the fund in some cities under certain conditions
Special treatments at outpatient department	Eligible for the use of the fund	Eligible for the use of the fund in some cities under certain conditions
Inpatient services	Eligible for the use of the fund in some cities	Eligible for the use of the fund, but deductible, co-payment and ceiling

		arrangements made
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Sources of data: compiled by the authors.

### **Supplemental health insurance schemes**

As presented above, the basic health insurance can only offer its beneficiaries limited health care. For example, about only half percent of the population covered by the basic health insurance scheme would have to have a higher expenditure than the level of ceiling defined for treating catastrophic diseases. In the meantime, some local governments in wealthier areas with profitable enterprises would be able to offer more health care benefits than those being offered by the basic health insurance schemes to their employees. Therefore, other health insurance schemes, such as supplemental health insurance schemes, were to be developed to meet higher demand for health services. At present, supplemental health insurance schemes for civil servants and employees of profitable enterprises have been piloted in some cities, such as Zhenjiang, Xiamen, Chengdu, Nanjing, Shanghai and Tianjing (Hu and Chen 2001).

In Zhenjiang, everyone covered by its basic health insurance scheme is also automatically covered by the supplementary health insurance scheme. The premium is 2.5 yuan per person per month (30 yuan a year), which must be paid by the insured themselves and it covers the co-payment, when the expenditure of health services ranges between 30,000 yuan and 100,000 yuan. Shanghai Municipal Government has also set up the so-called “Local supplemental health insurance scheme” while implementing the basic health insurance scheme. The employers are asked to contribute 2% of employees’ salary/wage as a premium for the local supplemental health insurance scheme covering 85% of the expenditures that otherwise would have to be paid out of pocket by individuals. Some cities such as Xiamen City in Fujian Province have also tried to let commercial insurance companies offer supplemental health insurance schemes. There are also many voluntary (commercial) health insurance schemes being set up in some cities like Chengdu and Shanghai.

### **Medical financial assistance schemes<sup>7</sup>**

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<sup>7</sup> Medical financial assistance schemes here do not include the mutual security funds which is organised and financed by a tripartite - employer, employees and the trade unions. The purpose of the fund is to help the employees pay partially for the expenditure occurred by catastrophic diseases.

Besides the development of the basic health insurance and the supplemental health insurance schemes, the central government has also encouraged municipal governments to develop medical financial assistance schemes to help the urban poor in obtaining access to basic health care. However, the progress has been very slow. By the year 2000 only Shanghai Municipal and Guangdong Provincial Governments had established medical financial assistance for the urban poor claiming income support. The Guangdong Provincial Government has decreed that the local governments should allocate the equivalent of 14% of the minimum living costs<sup>8</sup> for the medical financial assistance scheme. The Shanghai Municipal Government has developed similar policies for the urban poor, including the people receiving income benefits from the Civil Affairs Bureau, and the people claiming income support, who may or may not be covered by the new health insurance schemes. Benefit arrangements for the urban poor provided by the Shanghai medical financial assistance scheme are described in Box 3.

People who are eligible to apply for medical financial assistance have to apply first to the social assistance unit of local street management committees in urban areas, or the township governments in the rural areas which review the applications and pass them on to the district/county civil affair bureaux, if the applications meet the set criteria. The fund for the medical financial assistance in Guangdong and Shanghai is mainly from the municipal governments, although Shanghai began to use the so-called “welfare lottery” and other means to generate funds to support the scheme in 2000.

**Box 3. Policies and regulations regarding benefit arrangements for the urban poor in Shanghai**

1. The people who fully rely on the financial support of the civil affair bureau are entitled to get reimbursement for the costs of outpatient, emergency and inpatient services.
2. The people whose families receive income support from the municipal governments are eligible for reimbursement of up to 25% of the costs of out-of-pocket inpatient services in excess of 1,000 Chinese Yuan.

Sources of data: Bureau of Civil Affairs, Shanghai Municipal Government, 2000. Announcement on Medical Financial Assistance. Document No. 33.

## **2.2 Main findings from the health insurance experiments**

Most of the findings presented in this sub-section are derived from the health insurance experiments conducted during Phase Two, since very few studies have been conducted and not many papers/reports are available to look at the new schemes implemented since 2000.

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<sup>8</sup> Almost all the cities in China have set up a level of minimum cost of living for their urban residents. The family whose average income per capita is below the level can claim income support from the municipal government.

One big innovation most of the health insurance experiments have made over the past decade is that the formerly separate GIS and LIS have been combined into a single health insurance scheme. Usually, a health insurance fund centre or bureau has been established at each municipal level to collect, manage and monitor the funds. This has significantly increased the extent and capacity of risk-sharing. Under the old GIS and LIS system, individual institutions or enterprises were responsible for paying medical care expenditures for their own employees and retirees, and there was no risk-sharing arrangement between the institutions or enterprises.

The participation of eligible institutions and enterprises in different health insurance schemes experimented in various cities differed a great deal before 1998. In the Zhengjiang experiment about 95% of the eligible institutions and enterprises participated in the health insurance scheme in 1995, covering 95% of the eligible population (Wang 1998). However, the participation rate in some health insurance experiments was as low as 20-30 percent. According to one recent study conducted in Nantong City, Jiangsu Province, about a quarter of the eligible public institutions and enterprises participated in the health insurance experiment in 1998. It was found that the enterprises with a large proportion of senior employees that were also taking care of a large number of retirees had a financial incentive to participate in the new health insurance, because they can effectively control their higher costs through risk pooling. In the meantime, newer enterprises, particularly foreign manufacturers and joint ventures in good financial situations were very reluctant to participate in the health insurance experiments since these enterprises had to pay more money to the health insurance fund, because of the higher than average wages despite having a younger and healthier workforce and getting in return the same package of benefits.

Although most private enterprises/companies and self-employed individuals were required to participate in the experimental health insurance schemes, the participation rate was low because of lack of legislation. Therefore, the people working in these enterprises and companies were less likely to have adequate health insurance. The hospital insurance scheme introduced in Shenzhen, which was mentioned above, was an attempt to encourage these enterprises to buy hospital insurance for their contracted workers who were unlikely to be permanent residents of the city. It has been popular and the number of the people covered by the hospital insurance in Shenzhen rose to 83% of the population in 1996, from 1.38 million in 1994 to 2.53 million (Ou 2000). However, the proportion of the population covered by both new health insurance schemes and the traditional GIS and LIS and commercial health insurance schemes, did not increase that much in many cities. The national health service surveys show that in Haikou, the capital city of Hainan Province, the percentage of population having any health insurance declined from 45% in 1993 to 31% in 1998, while the percentage of the population paying out of pocket for health services increased from 54% to 68% over the same period. The main reason was that not all the enterprises and public institutions participated in the new health insurance schemes while some of them stopped the operation of the GIS and LIS .

The central government wanted to see that all the enterprises and public institutions which had GIS and LIS should participate in the new basic health insurance schemes. As reported by one senior government official responsible for health insurance in the Ministry of Labour and Social Security, 92% (320) of the cities at prefecture level or higher designed action plans for implementing basic health insurance reform, but only 284 cities (81%) implemented the new

scheme by the end of year 2000. 43,000,000 employees and affiliated retirees are now covered<sup>9</sup>.

The old LIS was responsible for paying partial medical care expenditures for their employees' direct dependents. And the old GIS also allowed the public institutions and government agencies to use the budget earmarked for employees' welfare to reimburse the part of medical care expenditures by direct dependents of their employees. Neither the health insurance experiments nor the new basic health insurance schemes implemented since 2000 in many cities have dealt with this category of the population. In the regulations for these experiments and the new basic health insurance schemes it was usually said that the benefit arrangements for employees' direct dependents should be maintained, as defined by the old LIS. There has so far been no evidence available to estimate what percentage of the employers are still providing health care benefits to the direct dependents of their employees, as they did before the 1990s<sup>10</sup>.

Almost all the experiments and the new schemes have adopted a combination of personal accounts and social pooling fund in the management of insurance fund, collected from both employers and employees. As reported by many cities, the financial contribution from employees (1-2% of their salary/wage) was put into their personal accounts. The financial contribution from employers (6-11% of employees' salary/wage) was divided into two parts – personal accounts and social pooling fund. About 40-70% of the fund from the employers was usually allocated to social pooling fund. The percentage was pro-rated by age groups.

In terms of how to use the fund deposited into personal accounts and how to spend the social pooling fund, different health insurance experiments have developed different rules. However, there are two main approaches used in these cities. One is that the fund from the personal accounts can only be used to pay for outpatient services and drugs provided from designated health facilities and pharmacists, while the social pooling fund can only be used to pay for inpatient services. The other one is that the fund from the personal accounts can be used to pay for outpatient services and drugs, as well as deductible (excess) payment required for inpatient services, etc. The social pooling fund can only be used, after the personal account has run out of funds and the insured has paid a certain amount of money out of pocket for health services. A number of cities, including Hainan, Nantong, are using the first approach. Cities like Shanghai, Shenzhen, are using the second approach. However, there is a trend that more cities began to adopt a mixed approach aiming to achieve cost containment and equitable access to health care.

Purchasing and providing services have been separate in most health insurance experiments. In the early 1990s, some cities had created the health insurance fund management centres or health insurance bureaux for collecting the funds, purchasing services, and monitoring utilisation. These bodies operated under the leadership of the health bureaux or health department of municipal governments. Along with the establishment in 1998 of the Ministry of Labour and Social Security at the national level and Bureau of Labour and Social Security at provincial and

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<sup>9</sup> Personal communication between Shenglan Tang and Xianjun Xiong.

<sup>10</sup> In China the dependants covered by LIS were said to enjoy "Half LIS". According to the results from the national health service surveys, the urban population covered by "Half LIS" declined from 12.9% in 1993 to 5.8% in 1998. This implies that many enterprises no longer provide any medical care benefits to the dependants of their employees.

municipal levels, a majority of these insurance fund management bodies have been supervised by the new labour and social security bureaux. Government officials and civil servants working at the new labour and social security bureaux and health insurance management centres are responsible for developing detailed regulations on the use of the insurance fund, service payment and monitoring of fund use.

One great challenge facing them is that most of the personnel in charge of new health insurance scheme development, who were either civil servants from the old ministry and bureaux of labour or health, don't have expertise or managerial skills. Most of them have received little training on either health insurance or service purchasing. Inevitably, many policies and regulations developed in many cities have serious problems in terms of either cost containment or equity in financing of, and access to health care. For example, the new health insurance policies and regulations developed by the Shanghai Municipality do not have rigorous mechanisms controlling the abuse of insurance fund. According to its policies and regulations, those insured are entitled to use the social pooling fund after using up the fund in their personal accounts and paying a fixed amount of money out of pocket. Many insured people in Shanghai are now letting their family members, who are mostly not covered by the basic health insurance scheme, use their personal accounts. There is no photo on the insurance cards, and hospitals and other service providers have difficulties checking personal identifications of patients using the services. Nor do they have incentives to do it.

In summary, the new health insurance schemes which have been or are being developed in most of cities in China, are adopting in principle a similar model in terms of financial contributions, population coverage, benefit arrangements, and the use of the insurance funds. The main financial contributors are local governments, enterprises, and individual employees. Local governments, as employers of government agencies and public sector institutions, make their due payment to the health insurance funds. However, there are usually no other funds from local governments to support, for example, loss-making enterprises and the urban poor. There are some variations in the level of financial contributions by employers, the use of funds from personal accounts and social pooling fund to pay for outpatient and inpatient services, as well as emergency care among these cities.

### **2.3 Issues on inequity in financing of and access to health care**

There has not been much literature nor many published research reports assessing the impact of these health insurance schemes on equity in financing of and access to health care. This section tries to discuss some equity related issues, using the data from the on-going research projects undertaken by some authors of the report and the information from the key informants.

#### **Institutional participation in health insurance and population coverage**

All these new health insurance schemes implemented in several hundreds of cities in China are aimed at targeting mainly the employees and the retirees from the government agencies, public sector institutions, state-owned and collective-owned enterprises/companies, joint venture, and private firms. They exclude children<sup>11</sup> and adults who are unemployed.<sup>12</sup> This was because there has been no policy about who is going to make financial contribution to the new basic health insurance schemes for these populations. There is a population of about 370 million living in the urban areas, of which just around 178 million are employed. The remaining 192 million of the urban population are still not covered by basic health insurance system. It was estimated that about 5.64 million people whose family incomes were below the minimum level of living costs; and in theory entitled to claim income support (Hu and Chen 2001). Generally speaking, almost all the institutions covered by the former GIS have participated in the new health insurance schemes, largely because the municipal governments are the employers who use the government budget to pay for health insurance. However, the participation of the enterprises, joint venture and private firms in the new health insurance schemes varied a great deal. A study conducted in Nantong City, Jiangsu Province shows the following results (Tang et al 2001).

- Loss-making enterprises were unable to make a financial contribution (usually 8-10% of employees' salary/wage) to the health insurance fund and had to choose not to participate in the scheme.
- Profitable enterprises, particularly with a majority of young employees and paying their employees high salary/wages, did not want to participate in the scheme, because their management thought that they could use less financial resources to provide better health services to their employees and retirees.

As a result, the people working at the loss-making enterprises are hardly covered by the new health insurance schemes, although they are in theory still covered by the traditional LIS that has been crippled in these enterprises for many years. These people are less likely to get adequate access to health care. A study in Zibo City, Shandong Province and Nantong City, Jiangsu Province, indicated that many workers of the loss-making enterprises were unable to get reimbursed in a timely manner for the expenses they incurred. (Yan et al 2001). This finding is supported by a study conducted in Shanghai (Liang et al 2001) There were also reports that some non-profitable enterprises just gave their employees a fixed amount of money (10 – 50 Yuan) per month as medical care allowance then, these enterprises were no longer responsible for any payment. There has not been any concrete policy developed by the central or local governments to tackle the financial difficulty facing these loss-making enterprises in paying for health services.

Another problem, as mentioned above, is how to encourage profitable enterprises with a majority of young employees who pay their employees higher salary/wage to participate in the new health insurance scheme. Some cities have decided that financial contributions made by all the employers to the health insurance scheme would be based on a fixed percentage of average salary/wage of city employees, not on the level of salary/wage they actually pay their employees.

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<sup>11</sup> Some cities like Shanghai has set up "inpatient care insurance scheme" covering the children between 4 years old and 18 years old (Hu and Chen 2001).

<sup>12</sup> In 1998 about 13% of the urban residents over 15 years old had no jobs and 8% of them have been laid off in the reform of state-owned enterprises according to the recent survey (Gao et al 2001).

Such a method has of course made the profitable enterprises happier and more willing to join the new scheme. Never the less, those enterprises which pay their employees lower salary/wage have had to make much greater financial contribution to the scheme than what they were supposed to do.

In addition, some of profitable enterprises unwilling to join the schemes also had the support from their employees for the decision of not participating in the scheme. These profitable enterprises were often responsible for paying all the medical expenses for the services sought by their employees. However, the new schemes require all the employees to share in a varying degree a portion of medical care costs (deductible, co-payment, etc.). Therefore, these employees thought that they had to pay some money out of pocket for seeking care, while the benefits received have reduced according to the regulations of the scheme.

All these problems presented above have illustrated that although there was a great effort made by the Chinese government in establishing a city wide social health insurance scheme, the vested interests of enterprises and beneficiaries of the old systems has prevented many local governments from implementing the schemes smoothly. There is still a long way in pursuing equity in financing of health services.

#### Use of insurance fund

The insurance fund contributed by employers and employees is put into the personal accounts and social pooling fund, based on a defined formula. People covered by the health insurance scheme should use the fund in the personal accounts first to pay for health services. In some cities, like Hainan and Nantong, the fund in the personal accounts can only be used to pay for outpatient and emergency services<sup>13</sup>. The higher your salary/wage, the more fund you have in your personal account. The study in Nantong City and Zibo City showed that those people, especially the elderly who were more likely to have chronic diseases, used up the fund very quickly, because the amount of money in the personal accounts was only up to several hundred Chinese yuan per year, while the average expenditure per outpatient visit in Nantong's hospitals was around 90 yuan in 1999. Once you have used up the fund, you would have to pay out of pocket for all outpatient and emergency services, except a limited number of services. In-depth interviews with several dozens of people from different backgrounds in Nantong City and Zibo City echoed the following messages (Yan et al. 2001, Qian and Tolhurst 2001).

- Many people complained that the fund allocated to the personal accounts is often inadequate to pay for regular prescriptions.
- Several elderly people felt that the system unfairly advantages the young and those with higher salary/wages, because younger people could accumulate more funds in their accounts through good health, while elderly people who have only just started paying into their accounts have less opportunity to accumulate funds.
- Many thought that differences in salary/wages mean that financial contributions made by employers for each worker are unequal because they are calculated as a percentage of the salary/wages.

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<sup>13</sup> An increasing number of cities have allowed the insured to use the fund in the personal accounts to buy drugs at designated pharmacists.

It is hardly surprising, therefore, that fewer people visited health facilities and more people bought drugs from pharmacists, according to the national health service survey (Gao et al, 2001). This was mainly because people wanted to spend less money out of pocket or save the fund in their personal accounts. However, the quality of care might be compromised, if the pharmacists or the patients themselves didn't know how to treat the diseases properly.

A majority of cities allow the insured to use the social pooling fund to cover partially the costs of outpatient services for treating limited serious diseases such as ambulatory dialytic therapy for uremia patients, anti-rejection therapy for patient with organ transplantation, chemical treatment for cancer patients. This can to some extent help those with serious chronic diseases bear smaller financial burden placed on them. Never the less, the co-payment required (usually up to 20%) is still a big financial barrier for the families whose incomes are not high.

The rules for the eligibility of using social pooling fund are very complicated and also vary a great deal between different cities in China. As introduced previously, the fund is mainly used to cover the expenditure of inpatient services, although some cities allow the patients with some chronic diseases to use the fund to cover partially the expenditure of outpatient services. A deductible payment (equivalent to average monthly salary/wages of employees) is usually required for those being hospitalised. Afterwards, a co-payment (up to 30-35% of the cost) by individual inpatients has to be made during the period of hospitalisation. The ceiling line is usually set at the level of 4 times average annual salary/wages of employees in these cities. Studies conducted in Nantong and Shanghai found that some people, particularly the poor, had financial difficulties making deductible payment and co-payment (Chen et al. 2001). Liang and his associates (2001) put the deductible payment as the first barrier for the poor in seeking hospital care. Interviews with the patients, the poor people and the health workers indicated that the co-payment arrangements have also made many inpatients discharge themselves from hospitals much earlier than what they were supposed to be, because they were unable to afford the co-payment required.

While the mechanisms introduced in the new health insurance schemes have had many implications for equity in financing of and access to health services, they did have impact on cost containment and the improvement of economic efficiency. The traditional GIS and LIS provided virtually free health services to their beneficiaries who had no incentive to economise the use of health services. Since the implementation of the personal accounts and social pooling fund and the adoption of deductible and co-payment arrangements, the insured have now had a sense to rationalise the use of health services they needed.

#### Health financing for the urban poor and medical financial assistance

The new health insurance schemes developed in the cities in China only cover the employees and retirees whose institutions and enterprises have joined the schemes. These organisations and their employees are making financial contributions, as defined, to the health insurance funds. There is a substantial percentage of the urban population, including children, unemployed adults, laid off workers, and employees whose employers neither participate in the scheme nor implement traditional LIS, who are not covered by the schemes. The percentage of the urban

population not covered by the scheme could be as high as over 50%. In addition, the urban poor are less likely to be covered by the new basic health insurance schemes. A survey, which randomly sampled 1,400 households claiming income support from Shanghai Municipal Government in three Shanghai districts, found 49.5% of the households in which no family members are covered by the new scheme. And over half of these households claimed that poor health and paying for expensive medical care bill were the most important factor making them live in poverty (Liang et al 2001). In-depth interviews with 65 people from four vulnerable groups (elderly, laid off/unemployed workers, rural immigrants, and the urban poor receiving financial subsidy) in Nantong City and Zibo City found that only some of the elderly people who retired from the former sectors were covered by health insurance and a vast majority of these people interviewed did not have any health insurance arrangement (Yan et al. 2001). However, it were those vulnerable people who have much higher needs of health services. Among the 65 interviewees, about two thirds of them have had at least one chronic disease and half of them have had at least two chronic diseases. Without adequate health insurance, these people often had to either give up medical treatment, or borrow money from their relatives and friends to pay for medical bills. As Liang and his associates (2001) concluded, there were “One high and four lows” related to the urban poor and their access to health care. “One high” means a high need of health services, and “four lows” indicates 1) low coverage of health insurance, 2) low use of health services; 3) low expenditure of health services, and 4) low effectiveness of their disease treatment<sup>14</sup>. The national household health interview surveys conducted in 1993 and 1998 showed that the people in all the income groups in the urban China experienced reduction in the use of inpatient services over the period from 1993 to 1998. However, those in the lower income groups appeared to suffer most seriously. A positive relationship between income level and the utilization rate of inpatient services, which did not exist in 1993, developed in 1998. Furthermore, the average health expenditure per capita among 20% of the poorest urban population was less than half of that among the 20% of the richest urban population in 1998 (Gao et al. 2001).

Although there have not been many studies assessing the situation about the access of the urban poor to basic health care, both central and local governments have understood the seriousness of the problem. That was why Guangdong and Shanghai have developed medical financial assistance schemes, trying to help the urban poor get access to health care. However, the authorities in the two places did not make great efforts to publicise the schemes and thus the implementation of the schemes was not effective. The survey of 1,200 poor households in Shanghai showed that only 7.4% of the households were aware of the existence of the scheme existed. Less than ten percent of eligible poor households have so far received financial subsidy provided by the scheme. Additionally, the level of financial support to these urban poor is very low. For example, the scheme implemented in Shanghai defines that eligible people can be reimbursed 25% of the inpatient service expenditure paid to hospitals from the scheme. There are two problems here; first, before patients are admitted to hospital wards, they are required to pay a deposit to the hospitals in most cases. These people eligible for medical financial assistance often do not have enough cash to pay the deposit. Second, the percentage of reimbursement (25%) provided by the scheme is not enough to give them meaningful financial assistance.

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<sup>14</sup> This was due largely to uncompleted medical treatment because of financial reason.

Health care financing for the urban poor and other vulnerable groups is one of great financial and political challenges to the central and local governments in China. Due to re-structuring industrial sectors and China's joining the WTO, there will have to be more workers in many formal industrial sectors to be laid off. The unemployment rate in urban China may have to rise in the coming years. While the fiscal status of many municipal governments is poor or will become worse, more the urban poor and vulnerable groups need to get government subsidies for health care, among other social services. Apparently, many municipal governments, particularly in the western part of China, are not in a position to commit their financial resources to help the poor and vulnerable groups get access to basic health care. Then, the central government should use the means of fiscal transfer to help the municipal governments with poor fiscal status to do this, especially the fiscal status of the central government has been improved significantly in the recent years. Never the less, this is a hard decision for the central government to make, because not only a large size of grant would have to be involved in a long run, but also the balance of supporting the urban poor AND the rural poor should be adequately maintained from a political point of view. Given the situation described above, , the Chinese government may not be able to address the problem of health care financing for the urban poor and vulnerable groups in the near future. However, it is probable for some affluent cities, such as Shanghai, to establish a realistic medical financial assistance scheme for the urban poor, which can be modelled by other places in the future.

### **3. Changes in service purchasing and provider payment methods and their impact on efficiency**

Paralleling the reform of urban health insurance schemes, the central government has encouraged cities to experiment different service purchasing arrangements and provider payment methods. Many municipal governments have tried to change these arrangements and methods in order to deliver health services at relatively low costs and with reasonably good quality. In order to better monitor and evaluate the performance of service providers, MOLSS, together with other ministries including MOH, has recently issued several policy documents aimed at setting up grand rules for delivering and managing health services covered by the new health insurance schemes<sup>15</sup>. This section reviews the evolution of service purchasing and provider payment methods over the past fifteen years. It then examines the impact of these changes on allocative and technical efficiency in terms of congruence between health care needs and availability of resources and technical quality.

#### **3.1 Changes in purchasing arrangements and provider payment methods**

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<sup>15</sup> These policy documents include 1) Items and standards of basic medical services; (2) Standard accounting method of health services and drug expenditures; (3) A list of essential drugs for health insurance; (4) Standards of diagnostic and treatment regimes; (5) Accreditation on contracted hospital and contracted pharmacy; among others.

The main purpose of reforming urban health insurance in the 1980s was to control rapid rise of medical care expenditures, particularly related to the GIS and LIS, while the beneficiaries of the GIS and LIS still receive quality services when they need. Before 1985, great efforts were made to reduce unnecessary demands for health care by introducing the mechanism of co-payment (up to 20% of medical care expenditure should be paid out of pocket by individuals covered by the GIS and LIS). Although the introduction of co-payment did control to some extent demand of the insured for health care, the speed of GIS and LIS expenditure escalation tended to be much faster than that of GDP growth in the early 1980s (Liu and Hsiao 1995). This was mainly because of provider-induced demand being still very high. “Big prescriptions”<sup>16</sup> and over-use of high medical technologies were just among many examples frequently reported in national and local newspapers. Under such a circumstance, many municipal governments understood that, unless fee-for-fee payment, a traditional provider payment method widely used in China, changed, it would be very difficult to control provider-induced demand. Therefore, some cities started to change the provider payment methods for the GIS in late 1980s. They used capitation method to negotiate with health service providers, mainly large hospitals. Usually, the GIS management offices of local governments signed a deal with one or more large hospitals, which defined that a fixed amount of money per person would be allocated to the hospitals for providing a defined set of services annually. If the hospitals had overspending, they would have to share part of financial responsibilities, with municipal governments or employers, according to the agreement signed. If the hospitals had some saving, they could retain the saving which was allowed to pay bonus to the doctors and staff or/and to invest in hospital development. It was common that the GIS management offices worked out a list of essential drugs and services that were covered by the schemes. For example, the GIS Management Office in Jinan City set up a fixed rate around 240-380 Yuan per capita per year in contracting health services with hospitals. If they overspent the amount of money, the hospitals themselves had to bear 50% of the extra expenses beyond the capitation payment (Wang HY 1998). Some large enterprises also adopted this kind of provider payment method later, as part of reforming the LIS. As a whole, the introduction of capitation payment in some cities has had some impact on cost containment.

Since early 1990s more changes in service purchasing arrangements and provider payment methods have been seen in the health insurance experiments in Shenzhen, Hainan, and Zhengjiang and Jiujiang. In addition, it was quite common that these arrangement and methods were revised in these cities every several years over the past decade for coping with the new problems that arose.

### **Shenzhen**

As discussed previously, Shenzhen started formally the health insurance experiment in 1992. Between 1992 and 1996, four different provider payment methods were used by the medical insurance bureau in purchasing services for its beneficiaries (Ou 2000, Wang DF 1998, Mou 1996).

- Outpatient services were paid at a fixed amount of money per visit. The medical insurance bureau and hospitals reached an agreement on average expenditure of

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<sup>16</sup> The term “Big prescription” in China indicates that doctors prescribe quite a number of drugs at one prescription, making the cost of the prescriptions very expensive.

outpatient services per visit and hospitals then sent the medical insurance bureau an invoice which was based on the number of outpatient visits occurred in the last month.

- Payment for inpatient services was based on a fixed amount of expenditure per inpatient day and average length of hospital stay, which was agreed between the purchaser and the providers.
- DRG payment was also used for dealing with some special diseases, such as TB treatment and cardiovascular diseases.
- Capitation payment method was used to pay for the services provided by health facilities run by enterprises. For example, the medical insurance bureau used the capitation to pay for the services provided by a clinic run by, and physically located in, a state-owned enterprise to its employees.

These provider payment methods stated above were respectively revised and adjusted in 1996 and 1997, mainly for taking more rigorous measures for cost containment. In addition, the medical insurance bureau has set up a system aimed at monitoring and evaluating the hospital operation.

### Zhengjiang

Right at the beginning of the health insurance experiment, Zhengjiang adopted almost similar approaches to paying service providers for outpatient and inpatient services, as Shenzhen did. The main difference was that the medical insurance management office in Zhengjiang had to be consulted before new high medical technologies could be used for diagnosing or treating its beneficiaries because of cost implication. In addition, Zhengjiang has also developed a number of measures aimed at controlling rapid cost escalation, which included a list of essential drugs, rules for organ transplantation, and financial risk-sharing responsibilities between the purchaser and the providers.

In 1997, Zhengjiang changed the provider payment methods radically. The fee-for-service payment method was reintroduced when the insured used the fund from the personal accounts to pay for outpatient services. In addition, the medical insurance management office in Zhengjiang adopted the method of “Global budget control” to pay the service providers in the use of the social pooling fund. This approach was originally used by Shanghai Municipal Health Bureau and Medical Insurance Bureau in cost control in 1994<sup>17</sup>. Zhengjiang medical insurance management office would not bear any financial responsibility if the total expenditure of health services spent on its beneficiaries exceeded the level of “Global Budget”. It implies that the service providers had to take all the financial responsibility for the overspending.

### Other cities

Like Shenzheng and Zhengjiang, other cities in China have also tried a variety of service purchasing arrangements and provider payment methods as alternative means to control a rapid

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<sup>17</sup> Shanghai Municipal Health Bureau and Medical Insurance Bureau introduced “Global Expenditure Control and Structure Adjustment” for its designated hospitals annually, while aimed to limit the hospitals to increase their expenditure at a certain level, while encouraged them to adjust the structure of revenues generated from drug sale, service provision and others.

rise of health service expenditures. Although the “fee-for-service” payment is still widely used in many settings, other provider payment methods, such as capitation, global budget and DRG, have been experimented in many cities where the new health insurance schemes are being implemented.

### **3.2 Impact of provider payment methods on efficiency and quality of health services**

Different payment methods give service providers different incentives and thus have different impact on efficiency of service provision (Barnum et al 1995). Hospitals and other health facilities in China have swiftly responded to new provider payment methods introduced in the reform of urban health insurance schemes. Some of their reactions do improve allocative and technical efficiency in providing health services to the population covered by the schemes, but others do not. This sub-section tries to look at how the service providers reacted to different new payment methods and what are the implications for cost containment, efficiency and quality of health services<sup>18</sup>.

Many reports show that, after the implementation of new health insurance schemes since the early 1990, the rapid increase of medical care expenditure has to some extent been controlled. The reports from Shenzhen, Zhengjiang, Jiujiang and Mudanjiang indicated that the total expenditure of health services spent by the beneficiaries was lower after the reform than that before the reform (Shen et al. 1999, Fei 1996, Yang 1997). This was due largely to the introduction of cost-control mechanisms put both on service users (deductible, co-payment, and ceiling line) and on service providers (fixed payment for outpatient visits, inpatient day, etc.). However, this trend did not last very long in some cities, such as Zhengjiang, where the rapid rise of health care expenditure was seen again in 1-2 years after the implementation of new provider payment methods. The main reason was that service providers developed a strategy to counter the cost control mechanisms implemented. In the cities where fixed payment for outpatient visits was used by the service purchasers to pay service providers, patients were often asked to come back to see service providers shortly after their first visit to service providers. In order to do this, the patients were sometimes given only two to three days drugs and they had to come back after using up the drugs prescribed. Those patients who did not return to see doctors for various reasons were unable to get their diseases treated properly. As a result, the average number of outpatient visits per person rose dramatically. In Shenzhen the average number of outpatient visits per insured person per year was as high as 25 times during the first several years of the experiments (Wu 1999). Service providers used such a strategy for increasing their revenue. A similar phenomenon happened in inpatient services. When the service purchasers used the average expenditure of hospital admissions to pay for inpatient services, the hospitals often asked their inpatients to be discharged from the hospitals earlier than they should be, and then took these patients back to the hospital wards again shortly. Shen and his associates (1999) reported that about 12% of the hospital admission cases in 1993 were in violation of the rules defined, according to an inpatient survey in Shenzhen. This situation has been improved in 1997, after rigorous monitoring measures were put in place.

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<sup>18</sup> There have been few published papers or reports in these areas, which were based on empirical studies. Many papers published in Chinese journals were mainly based on authors' experiences or the data collected by the routine information systems.

Where the capitation method was used to pay for health services, the hospitals and other health facilities were very conscious of health care costs, which was helpful to the cost containment. However, there was a tendency that these service providers tried to refer the patients whose diseases were serious and who could potentially absorb lots of resources to upper level service providers in order not to bear financial risks. In addition, doctors in these health facilities tended to provide fewer services than they should do, which could compromise the quality of services sought by the service users. Although there have been no studies quantifying the problems of this kind, there were reports showing these problems occurred in Shenzhen and Jinan (Wu 1999, Wang HY 1998). Some cities in China have tried to use DRG to pay for health services. Never the less, no serious research has been done to assess the impact of using DRG on service efficiency.

The introduction of “Global Expenditure Control and Structure Adjustment” in Shanghai, as mentioned previously, has had positive impact on efficiency in service provision. But this method is actually not a provider payment method. Rather, it is a strategy for containing health care cost and improving allocative and technical efficiency of health services. Because of effective cost containment and potential improvement of service efficiency this strategy provides, more cities, like Zhengjiang have, in one way or another, adopted the strategy fully or partially (Cai 1997).

Many papers published in China show that, after the reform of the GIS and LIS and the introduction of new health insurance scheme, the overall costs of health care have been either contained or declined. The proportion of drug costs in total hospital expenditures has also been significantly reduced (Wu 1999, Cai 1997, Mou 1996). The use of high medical technologies and expensive imported drugs has also been more rationalised. However, it is very difficult to say which measures have had impacts on these changes observed. It may be fair to say that the introduction of cost control mechanisms placed on both service user side (deductible, co-payment, and ceiling line) and service provider side (capitation, global budget, fixed unit payment, etc), as well as the reform of health service prices and drug prices<sup>19</sup>, have been attributed to the changes. In terms of the impact on service quality, the messages from the interviews and the focus group discussions with doctors, nurses, and service users in the two Chinese cities seem mixed. Competition among different providers did have impact on the improvement of service quality and efficiency. However, many measures implemented have affected negatively the quality of various services. According to some service purchasing arrangements, the providers should not provide patients with some diagnostic tests or drugs that are not in the list of reimbursable items, unless the patients are willing to pay for them out of their own pockets. Some service users reported that this affected the quality of the service they sought. In addition, a ceiling set up for each hospital admission by one municipal health insurance management centre did make doctors discharge their inpatients earlier than they did normally (Tang et al. 2001).

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<sup>19</sup> Over the past five years, there have been a series of the reforms on health service prices and drug prices. The prices for using high medical technologies, which used to be set up well above the costs, have been lowered. This aimed to reduce financial incentives for over-use of high medical technologies. The prices for essential drugs have also been reduced recently. All these efforts attempted to improve service efficiency.

In summary, the introduction of more different provider payment methods and the use of various service purchasing arrangement in the reform of urban health insurance schemes have had both positive and negative impacts on efficiency and quality of health services in China, while it has controlled, to some extent, the rapid escalation of medical care costs.

#### **4. Improving equity and efficiency in health care: new policies and practice**

In this final section of the report, the recent development of government policies on urban health care financing and provision is examined. It then looks at implications on equity and efficiency of health care, and discusses potential problems in the implementation of key policies in the context of current socio-economic situation.

##### **4.1 Recent development of government policies on urban health care**

In January 1997 the central committee of Chinese Communist Party and the State Council issued an important document entitled “Decisions on Health Reform and Development”, setting out directions and principles on reforming health care systems in China which included the urban employee health insurance scheme reform. Almost two years later, the State Council issued the Document No. 44 with regard to the decisions on basic health insurance schemes for the urban employees, in which more detailed principles and guidelines on the development of basic health insurance were laid out. It covers eligible population coverage, sources of finance, fund allocation and management, and monitoring of fund use and service provision. Following these principles and guidelines, each city in China began to develop new basic health insurance schemes in 1999. The experiences gained from the previous reforms of the GIS and LIS illustrate that, without appropriate changes in health service delivery system, it would be formidably difficult to make the health insurance schemes successful. Therefore, the State Council wanted to take a concerted action aimed at establishing an urban health care system that can provide the vast majority of urban population with effective health care at an affordable cost. As a consequence, the nine ministries, including the office of institutional reform of the State Council, the State Planning Commission, the State Economic and Trade Commission, Ministry of Finance, Ministry of Labour and Social Security, Ministry of Health, Bureau of Pharmaceutical Monitoring and Administration, and Bureau of Traditional Chinese Medicine, issued 13 policy documents in 2000, setting out a series of policies related to the development of non-profitable and profitable hospitals, the scope of government supported or subsidised health services, strengthening of drug income management, reforms of health service and drug prices, among others (Box 4).

#### **Box 4 Thirteen policy documents on urban health service delivery in China**

Document 1 – **Implementation suggestions on classificatory management of urban medical facilities:**

In this document the current medical facilities (hospitals) were suggested to be divided into non-

profitable and profitable ones in the near future. Different management systems for two different medical facilities should be developed accordingly.

Document 2 – **Suggestions on financial subsidy policy for health services:** This document set out new principles for the use of government health budget, the scope of services funded or subsidised by the government health budget, funding methods, as well as the ways used to manage and monitor the government health budget. It also describes how the development of health infrastructure will be funded.

Document 3 – **Temporary methods for the management of income and expenditure of pharmaceuticals in hospitals:** This document defined how the hospitals should have separate accounts for purchasing pharmaceuticals and their expenditures and how the profits from pharmaceutical sale should be used.

Document 4 – **Taxation policies for health facilities:** In this document different policies on taxation for preventive health facilities, non-profitable hospitals, and profitable hospitals were defined by the Ministry of Finance and the State Taxation Bureau.

Document 5 – **Suggestions on the reform of pharmaceutical price management:** This document suggested the adjustment for pharmaceutical price management, encouraged the use of market mechanisms in the management of pharmaceutical prices, and advocated the transparency in the setting up of pharmaceutical prices and the strengthening of pharmaceutical price monitoring and auditing.

Document 6 – **Suggestions on reforming health service price management:** In this document it is suggested to adjust the management of pharmaceutical prices, decentralise managerial responsibility for setting up pharmaceutical prices to provincial and prefecture levels, standardise the contents and prices of service items, and strengthen the monitoring and auditing of pharmaceutical prices.

Document 7 – **Guidelines on pharmaceutical procurements for medical facilities:** This document aimed to set out rules for all the medical facilities in pharmaceutical procurements in order to improve economic efficiency, ensure fairness, and control corruption.

Document 8 – **Accreditation of pharmaceutical trade agents and its methods for monitoring and management.**

Document 9 – **Suggestions on the implementation of patients’ selection of doctors and the promotion of medical facility reform:** The initiative proposed in this document aimed to improve the quality of services and the efficiency in service provision.

Document 10 – **Guidelines on the implementation of regional health planning:** This document set out the main rationale, purposes, principles and methods of implementing regional health planning. It also illustrated what measures should be taken and organisational and managerial changes should be arranged.

Document 11 – **Several suggestions on the development of urban community health care:** This document set out the importance of developing urban community health care (CHC) system, suggested the scope and provision of the CHC services as well as the management of the CHC system.

Document 12 – **Suggestions on reforming health monitoring (supervisory) ? system:**

Document 13 – **Suggestions on the implementation of personnel system reform in the health sector:** In this document the importance of the personnel system reform was elaborated and the principles and methods that should be introduced in the reform were proposed. It suggested changes in many aspects of the personnel system, such as hire and fine, remuneration, and staff management.

#### **4.2 Implications of the new policies for equity and efficiency of health services**

New policies issued in the documents presented in Box 4 have significant implications for equity and efficiency of health services. The policies proposed in Document 2 set out where the government health budget goes in the future. According to the new policies, the government health budget should be used to finance health services with the nature of public/merit goods and services. It means that public health facilities dealing with disease control and maternal and child health care should be put at a top priority for government funding. In addition, the government budget should also be used to subsidise basic health services provided by non-profitable hospitals. Besides, the government should also take financial responsibilities for funding health administration, implementation of health legislation, health information management, health related research, etc. It seems that the new policies are on the right track in the light of equity in financing of and access to basic health by ensuring that the government health budget be spent on basic preventive and promotive health care as well as essential clinic services, among other public goods/services.

To achieve allocative efficiency, the new policies have also advocated the development of better regional health planning through merging or closer of some hospitals, and other effective measures. In addition, the development of community-based health care has been seen a

potential way in which basic health care can be provided to a vast majority of urban population at an affordable cost.

Several documents (No 3, 4, 5, 7, 8) are to tackle the problems that existed in the service providers, thus improving efficiency and quality of health services. For example, the drug expenditure used to account for over 50% of total health expenditure in China in early 1990s, because of incentive structure (World Bank 1996). Over-use of drugs has given rise to economic inefficiency in service provision. It has also had implication for service quality. Four of the 13 policy documents deal with drug related issues. The new policies on either the management of drug income, which tries not to let service providers to retain the profits from drug sale, or the reform of drug prices, are said to improve rational use of drugs and thus efficiency in the use of scarce resources. In the meantime, the policies on drug procurement aims to tackle many problems that existed in the pharmaceutical market, such as “kick back”, and lower the costs of drug procurement.

New human resource management policies have also been developed in one policy document (Document 13), which proposes many radical changes in “hiring and firing”, pay level of health professionals, as well as staff performance management. Hospitals and other health facilities should be given more autonomy in these areas. As said the document, it should take 3-5 years to establish new efficient human resource management system in the health sector of China.

Of the 13 policy documents, one deals with patients’ right in choosing doctors (Document 9). It says that all the patients have a right to choose which doctor they would like to see. This approach is intended to encourage health facilities to develop user-centred health care system in which all health professionals should compete in provide quality services to service users.

All these new policies for urban health care have a good intention that is to improve equity in financing of, and access to basic health care, and particularly increase efficiency in service provision. However, whether or not these policies can be effectively implemented in China needs to be seen in the near future. Some policies, such as the separate management of drug income and expenditure, have already faced a great challenge in some cities. Not allowing service providers to retain profit from drug sale, while no extra funding from government health budget, has made the providers difficult in finding financial resources to support their operation. In addition, the question of which hospitals should be changed into profitable ones (or non-profitable ones) has not yet been adequately addressed. The policies about regional health planning have been promoted for many years, but the progress in many areas has not yet been significant, because of political and operational difficulties facing local governments. The development of urban community health care system, which aims to increase access to basic health care and reduce the costs of health care, cannot be successful, unless the CHC system would be integrated into the basic health insurance schemes being established in all the cities.

Most of the health policies and measures developed by various reform attempts in 1980s-90s were re-active in nature, instead of being pro-active. For example, while the government saw a rapid rise of medical care costs, appropriate measures were developed for cost-containment,

rather than efficiency. Quite often, these measures put relatively more emphasis on demand-side macro management strategies (i.e. deductible, co-payment, ceiling for the reimbursement, etc.), instead of supply-side macro management strategies, such as human resources policy, evaluation of medical technologies used, provider payment methods. For examples, it is quite often to see that more than half dozen of tertiary and secondary hospitals physically located in a middle-size city with less than half million population and that these service providers were competing each other in attracting patients. It is also not uncommon that in a urban district with 3-4 tertiary and secondary hospitals, they all wanted to purchase CT scanners to generate revenues and make profits. The regional health resource planning in fact started in China as early as in late 1980s when the World Bank supported its third health project in three cities in China, aiming to improve the planning of the regional health resources. Unfortunately, the progress in the improvement of macro management of limited health resources has been very slow over the past decade or so, due largely to political resistance from different interest groups and bureaucratic systems. In addition, the means used for cost containment, such as deductible and co-payment, became sometimes barriers for the poor to seek care. It is fortunate to see that some of the policies proposed in the 13 documents on urban health services have begun to tackle these problems and the government is trying to develop a balanced micro/macro management strategy demand-side vs. supply-side in reforming urban health services for equity and efficiency.

#### **4.3 Ineffectual policies on health care financing for the urban poor**

The government policies on health care financing for the urban poor are either lacking or ineffectual. There are two key issues here. One is how the loss-making enterprises, which accounted for a substantial proportion of enterprises in China and employ millions of workers, should be supported to join the basic health insurance schemes. The other is how the urban poor, mainly unemployed (including laid off workers) and elderly people who had no job previously, can get access to basic health care.

The traditional LIS in many loss-making enterprises has either been crippled or collapsed since the late 1980s. The employees in these enterprises have no longer been given social protection in general and health insurance coverage in particular. Meanwhile, their incomes are likely to be much lower than the average level. Although the cities where the health insurance experiments were conducted over the past decade encouraged all the enterprises to participate in the health insurance scheme, there was no specific policy developed by either central government or municipal governments to help financially the loss-making enterprises join the health insurance schemes. When these enterprises had no money to pay their employees timely and adequately, it was impossible for them to make financial contribution to the health insurance fund, as required. Inevitably, their employees were not covered by the health insurance schemes. These policy issues should perhaps be addressed at the national level, because some municipal governments in the areas where there are many loss-making enterprises are unable to provide financial support to these enterprises.

Although the central government encouraged municipal governments to establish medical financial assistance schemes to help the urban poor to get access to basic health care, there have so far been only two places – Shanghai and Guangdong, where the schemes have been set up recently. However, even in Shanghai and Guangdong, the medical financial assistance schemes offer very

little to the urban poor in seeking health care as discussed previously. There is a long way to go in assisting the urban poor to get access to basic health care in China.

The Chinese government has recently set up a target that the basic health insurance schemes should by the end of year 2001 cover 80 million of the employees which only account for around 20% of the urban population. Of those uncovered by the health insurance, a substantial proportion of them are likely to be poor and vulnerable. Therefore, the pro-poor policy on health care needs to be developed by the central and local governments in China to reverse the worsening situation.

#### **4.4 Development of sustainable urban health care systems: opportunities and challenges**

Access to basic health care has since the founding of People's Republic been regarded as a fundamental right for every Chinese citizen . However, this goal has never been fully achieved in China, although the situation of equal access to basic health care had improved by the early 1980s, particularly in the rural China where the rural co-operative medical schemes covered over 90% of the villages. The Chinese Constitution defines that the central government should develop macro-policies and regulations on health care, among others. It is mainly local governments' responsibility for financing and organisation of public services, as described as following.

“..... local (provincial, municipal, county and township) governments should govern its territory's economy, education, culture, health, sports, as well as finance, civil affairs, security, and family planning.”

During the past 20 years since China launched economic reform, the Chinese economy has developed very well. This is supposed to provide a sound economic foundation to the establishment of social security system to its population. Never the less, the countries like China are experiencing a transition from planned economy to market-oriented one. The social security system has not yet been well developed. The provision of social protection to all the Chinese population is still a great challenge.

Economic policies implemented in China since the economic reform have affected significantly in different ways the fiscal status of different municipal governments which are key institutions organising the urban health insurance schemes. The financial reforms undertaken over the past two decades were centred on the re-arrangement of revenues sharing between the central and local governments, and the development of new mechanisms in financial management. Generally speaking, each region has to take most of the financial responsibility for education, health and other social services. The fiscal transfer from the rich regions to poor ones has been weakening, although the poor regions still receive financial subsidies from the central government. The main aim of the reforms was to give greater autonomy to local governments and enterprises in order to speed up the development of local economies (Zuo 1997). It has inevitably been observed that

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such the reforms has let particular regions and sectors race ahead, whilst poorer regions have had increased financial difficulties. Therefore, it is not surprising to note that the government revenue as percentage of GDP declined from 28.4% in 1979 to only 11.7% in 1997. The central government only shared 22.0% of total government revenues in 1993. There was less capacity that the central government had in the arrangement of fiscal transfer in early 1990s than in early 1980s and 1970s<sup>21</sup>. For example, in 1978-80 the central government provided each of 15 provinces/autonomous regions that had financial deficit with the financial subsidy equivalent to 1/4 to 1/5 of its GDP, while Shanghai, the richest region in China, contributed over 50% of its GDP to the central government. However, Shanghai contributed only 8.5% of its DGP to the central government in 1991-93. Therefore, the poorest provinces and autonomous regions received relatively far less fiscal transfer in 1990s than in 1980s. Hence, the municipal governments in these poorer regions have often had enormous financial difficulties in financing and organising social services including health care (UNDP 1999).

The poor regions in China have faced more challenges than the rich ones in financing health care. First, their fiscal status is usually not healthy, because local economy is not strong and not many profitable enterprises or service sectors can help in increasing local revenue generation. Therefore, these municipal governments are probably short of fund to make financial contributions to the health insurance scheme for the people they employ. Second, there are probably many enterprises in these regions that are loss-making and are unable to pay insurance premiums for their employees. The municipal governments are not in a position to help these loss-making enterprises in this regard. Third, it is often in these regions where the problem of urban unemployment including laid off workers is most serious. Poor fiscal status makes it financially impossible to establish medical financial assistance schemes in these regions which could be very costly. While these difficulties have to reduce the demand for health services in these regions, the health service providers there still try to survive or even maintain a reasonably good income through a variety of means to generate more revenues. Such a situation is not helpful to the provision of efficient health services.

The central government in China has recognised all these challenges facing the development of urban health insurance schemes in many poor provinces and regions. However, it does not have financial means as a leverage that can push these areas to develop centrally promoted health insurance reform. All the central government has done was to develop relevant policies, requiring that all the municipal governments set up so-called basic health insurance schemes. The benefit package provided by different basic health insurance schemes can differ from place to place. The level of financial contribution made by employers to the health insurance schemes may vary within a range defined (6-12% of payroll tax). The central government suggested an increase of the level of financial contribution by individual employees. Although there are these possible differences among the schemes developed or being developed in different places, each municipal government should ensure that the vast majority of the urban employees get access to basic health care. All these efforts are aimed at making the basic health insurance schemes affordable and sustainable. They have also encouraged local governments to establish supplemental health insurance schemes for the sectors and enterprises that can provide better health care coverage

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<sup>21</sup> The percentage of revenues shared by the central government increased after 1997 since the central government implemented some taxation reform (UNDP 1999).

for their employees. Nevertheless since the central government has no financial leverages given to local governments at present, how can the central government ensure that local governments would effectively implement the policies and guidelines developed by the central government is in question. Therefore, some people in China argued that legislation might be needed in order for central government to ensure the compliance and implementation of the policies and guidelines. If there is no legislation either by the National People's Congress or local assemblies which sets out the legal requirement for enterprises of various kinds to participate in the city-level health insurance schemes, it would be formidably difficult for municipal governments to enforce them to do it. Having said that, the authors of the report understand that some health-related legislation in China may not be effectively implemented at a local level, due to lack of financial and human resources, and probably political will, particularly in the poor areas, for the enforcement of the legislation (Tang 1999). However, this direction should be pursued in a society, such as China, where there has been a transition in which it is laws that govern the country, not individual politicians at the central or local levels. Either governments or organisations and individuals have an obligation to abide by laws.

Additionally, what the Chinese government has not yet done adequately so far is to develop appropriate policies that improve equal access of the urban poor and vulnerable groups to basic health care under the situation in which the Chinese urban society is being developed towards a more inequitable one. Many senior policy-makers in China think that this task is too big to get it done properly in the near future. While it is understood that it may not be realistic to develop a universal urban health insurance scheme in China in a foreseeable future, there is also no excuse for either the central government or local governments not to take any actions to help the urban poor in getting access to basic health care. There are at least several affordable options that can be considered at present.

The central government, and particularly these local governments in rich regions, should consider using the government health budget to ensure that everyone in the urban areas, no matter what they are covered or uncovered by basic health insurance schemes, can get access to preventive and promotive care, such as child immunisation, maternal and child health care, family planning services, etc. If financially possible, the local governments should also provide free or subsidised services related to the prevention and treatment of several major infectious diseases, such as STDs, and TB.

The central government should also encourage the local governments to organise health insurance schemes covering major catastrophic diseases. This could start to target vulnerable groups, such as children and teenagers, or unemployed women. As long as the magnitude of the social pooling is sufficient, the insurance premium could be cheap because the incidence rates of catastrophic diseases are very low, as a whole.

The development of medical financial assistance schemes has been put on an agenda. As introduced previously, Shanghai and Guangdong have established the schemes, albeit limited benefits being offered to the urban poor. The central government should develop guidelines on the development of medical financial assistance for the urban poor, defining minimum guarantee of health care coverage for eligible poor residents in urban areas, for example. Local

governments should mobilise the fund from various sources to support the medical financial assistance schemes for the poor. In addition, local governments could develop special benefit policies for the poor and vulnerable groups covered by the basic health insurance in the formulation of the regulation of basic health insurance schemes.

Good practices and lessons learnt from previous experiments, such as “Hospital Insurance” for non-permanent residents in Shenzhen, should be introduced in other cities of China. In so doing, the coverage of health insurance can increase significantly. This is because equity in access of these people to basic health care should not be jeopardised in applying for demand-side macro management strategies (e.g. deductible and co-payment).

Besides what have been suggested above, there is also a need for the central government to implement effectively appropriate policies and regulatory framework developed recently in order to further improve in a coherent way the supply-side macro management strategies, such as physical and human resources planning, acquisition and use of high technologies, and demand side macro management strategies, such as prospective payment, price reform and regulation for drug and other services.

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# **The Chinese Medical Insurance Reform Review**

**Xiong Xianjun**

## **Section One**

### **Chinese Medical Insurance Reform Review**

Based on trials in Jiangsu and Jiangxi provinces in 1994 and their expansion in another 48 cities in 1996, nationwide urban health reform started in earnest in China in 1998. Despite the difference in reform policies and management system across the country, the framework remains the same.

Free medical care and labour insurance constituted the medical insurance system in urban Chinese cities before 1998. The free medical service covered employees in government departments and state-run public services. Its funding came from all levels of the finance department. Labour insurance mainly covered employees from state-owned and some group-owned enterprises. Its funds originated chiefly from enterprises. The two systems shared the following characteristics:

- Employees could not enjoy the medical insurance until they are employed. Some family members could enjoy half the cover. Employees obtained their medical insurance cover from the company they worked for before retirement. We have to emphasise here that under the Chinese planned economy an employee was a permanent employee, and employers paid the salary and medical insurance of employees until death.
- Employers covered the medical costs and employees paid nothing. This changed slightly after the eighties. In some places employees were asked to share some of their medical costs, usually between 10% to 20% of outpatient services and 5% to 10% of inpatient services.
- Individual enterprises and departments managed the medical insurance fund. The enterprises in receipt of government funding decided upon its distribution. If the fund was inadequate, the fault lay with the employer. In such circumstances, the employers from the state-owned sector had to pay for their employees. Therefore, there were variations among enterprises with regard to medical insurance risks and medical insurance cover.
- The covered areas included outpatient services, inpatient services, dentists and medicines as well as special services for female employees. Companies also paid their employees' salary throughout the medical treatment period.

The medical insurance system before 1998 was in perfect pace with the planned economy. However, in the transition from a planned to a market economy, the shortcomings of the system were revealed. Government and enterprises covered all the costs of medical insurance with no guaranteed source of funds. Medical insurance costs were difficult to control, and grew rapidly. The national expenditure on health care increased by 28 times from 1978 to 1997, while the national economy only grew 6.6 times in the same period. Yet, employees from some companies

found it difficult to get their medical costs refunded, regarding the so-called 'labour service system' as nothing but a name. The medical insurance risks were not shared among enterprises, which increased the social burden of individual enterprises. Limited companies, private firms, and foreign-invested companies were not included in the medical insurance system. For the above reasons, medical insurance reform has come to be the shared demand of government, employers and employees.

On the basis of some medical insurance policy adjustment in the eighties, China commenced reform measures in the nineties. Apart from analysing the medical insurance situation in China, many delegates were sent to study in Singapore, Germany and so on. They focused mainly on international medical insurance policy. Cai Ren hua and others categorised the international medical insurance into four types.

1. Government medical insurance system, such as that in the United Kingdom.
2. Social cover system, as in Germany.
3. Commercial cover system, as in the States.
4. Individual system, as in Singapore.

Of these the systems in Singapore and Germany were recommended. Most people regard the combination of an individual and a social system the best for China. The combination has the advantage of risk sharing by pooling funds together and cost control by using the individual account. The individual account could help to relieve the pressure of an aging population and corresponded to people's saving behaviour. The adoption of the individual account in the health insurance scheme was influenced by the pension insurance scheme which also utilised individual accounts.

## **Section Two**

### **Policy Outline of the Medical Insurance Reform Trial**

In Jiangsu and Jiangxi a reform plan was drawn up by the Department of Labour, the Department of Health and the Department of Finance, and implemented at the end of 1994. Its main characteristics are as follows:

- *Medical Insurance Cover Areas.* Current employees as well as retired employees from all kinds of companies must participate in the medical insurance system.
- *Fees.* Employers and employees share medical insurance fees. Employers pay 10% of employees' salaries or of retired employees' pensions, and employees pay 1% of their salary.
- *Fund.* The fund is composed of the group fund and the individual fund. Employees over 45 or retired employees pay 5% of their income and those under 45 pay 7%. Subtracting the individual medical insurance cover from this fund gives us the group fund.

- *Cost.* Employees medical costs are first taken from their individual medical insurance fund. After that employees pay 5% of their salary, and if this does not cover costs, they pay 10% of their salary up to 5000 yuan, 8% for costs of 5000-10000 yuan and 2% if the amount exceeded 10000 yuan. Retired employees pay 50% of the payment rates of current employees.
- *Service.* Employees are covered for outpatient, inpatient and dentist services, but have only limited cover with regard to medicine, medical technology fees and living costs during inpatient service.
- *Fund Management.* The medical insurance fund is no longer under the charge of individual enterprises. The Department of Labour and Social Security has been established for this purpose. It manages the entire fund and clears the costs with medical establishments.

After a one year trial, the reform received its result. Firstly, rapidly growing medical cost were reduced. Secondly, employees' basic medical treatment was now guaranteed. Thirdly, the Department of Labour and Social Security was established. After a one-year trial, the State Council believes that a combination social and individual medical insurance system suits the current situation in China. However, further examination and application of policy was required. This resulted in 56 more trials in 1996, although, strictly speaking, there were only 38 cities. After three years trial in various cities, some problems were found.

- Enterprises were paying too much. This was not appropriate considering the differences in economic status among enterprises. Some of them could not afford to pay medical insurance, and therefore could not join the medical insurance system. Obviously, this hinders enterprise reform.
- The individual medical insurance fund was excessively healthy while the social fund was in the red.
- There was a lack of control over the total spending of the social fund. The social fund in many cities was in the red due to expensive medical costs.

After the new government came to power in 1998, a nationwide basic medical insurance system was vital considering the new government wanted to conclude enterprise reform within three years. This resulted in a plan to establish a basic medical insurance system and give extra help to some at the same time. The aim of the basic medical insurance scheme is to provide the same level of medical insurance among different enterprises, as well as to guarantee good quality medical treatment to public service employees and those of other better-off enterprises. Politically speaking, state-owned enterprises need reforming, but social problems cannot be ignored either.

## **Section Three**

### **Policy Outline of the Chinese Medical Insurance Reform**

The State Council initiated departmental reform, and in 1998 established the new Department of Labour and Social Security to manage the medical insurance system. It also issued 'The State Council decision on urban employee basic medical insurance system establishment' at the end of 1998. This new policy provided the main framework for the medical insurance system in China. Its contents include the following:

- All employees in cities including retired employees must join the medical insurance system.
- Employers fees should be controlled at around 6%, and employees fees at around 2%. Local government decides the percentage paid by employers and employees. Retired employees are exempt from fees.
- 30% of employers fees and all of employees fees will enter employees' individual medical insurance accounts. The percentage paid by employees is based on their age.
- Individual and social medical insurance are divided into different spending areas. The former is mainly for outpatient services whilst the latter is for more expensive medical costs.
- With regard to social medical insurance spending, the medical costs are paid firstly by employees, up to 10% of their annual salary. The social medical insurance fund and individual share the cost that exceeds 10% of the individual's annual salary. The ceiling of the expenditure of the social pooling fund is 4 times the average annual salary of local employees.
- Medical costs beyond the ceiling of the social medical insurance account will be provided by commercial insurance. These could include medical cost allowances to civil servants and the establishment of complementary insurance for the enterprises.
- Medical costs with regard to medicine, clinics, high technology treatment, inpatient living services and facilities must be controlled.

Compared to the former trial programme the new plan has the following characteristics:

Firstly, the plan divides the medical insurance system into different levels. The basic medical insurance covers all employees, plus additional complementary insurance schemes are provided to some groups of employees to maintain the higher level of insurance which they had previously received. Although this runs contrary to the equity policy of medical insurance practice, it is necessary in order to maintain the stability of society. Secondly, the medical insurance fee from enterprises has been reduced. This will assist those enterprises that previously could not afford medical insurance fees. Thirdly, it is considered vital to control the medical cost percentage split between the individual medical insurance account and the social medical insurance account.

Raising the percentage of the individual medical insurance account reduced the risk to the social medical insurance fund. Fourthly, the individual account and social pooling fund pay different treatment costs. Most of the outpatient costs and a small portion of inpatient costs will be paid by the individual account; therefore the saving function of the individual account is weakened. Fifthly, local government will be given more power to make decisions regarding financing, the rate of self-payment and methods of paying.

Since urban health reform commenced in 1998, the government has invested a great deal of time and energy on policy implementation throughout China. In 2000 the Chinese government began reforming the drug market and medical departments, in order to cut medical costs and facilitate the smooth reform of the medical insurance system. Up to June 2001, almost 60 million people were transferred from the public and labour service insurance systems (GIS and LIS) to the new medical insurance system. The plan is to transfer all employees to this new medical insurance system within the next three years.

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